



Environmental Assessment

West Side Stormwater Lift Station

City of Delano, Wright County, Minnesota

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List of Acronyms and Abbreviations

APE	Area of Potential Effect
BMP	Best Management Practice
BWSR	Board of Water and Soil Resources
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CFS	cubic feet per second
CO	carbon monoxide
CWA	Clean Water Act
dB	decibel
DHS	United States Department of Homeland Security
DNL	Day/Night Average Sound Level
EA	Environmental Assessment
EDR	Environmental Data Resources
EO	Executive Order
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
HMGP	Hazard Mitigation Grant Program
HWL	High Water Level
LGU	Local Governmental Unit
MDNR	Minnesota Department of Natural Resources
MNRRRA	Mississippi National River and Recreation Area
MPCA	Minnesota Pollution Control Agency
MRCA	Mississippi River Critical Area
NAAQS	National Ambient Air Quality Standards
NCA	Noise Control Act of 1972
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHP	National Heritage Program
NO ₂	nitrogen dioxide
NPDES	National Pollution Discharge Elimination System
NPS	National Park Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
O ₃	ozone
OSA	Minnesota Office of the State Archaeologist

List of Acronyms and Abbreviations

OSHA	Occupational Safety and Health Administration
PM ₁₀	particulate matter of 10 microns or less
RCRA	Resource Conservation and Recovery Act
SHPO	State Historic Preservation Office
SQG	Small Quantity
URS	URS Group, Inc.
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
WCA	Wetland Conservation Act
WSRA	Wild and Scenic Rivers Act

1.1 PROJECT AUTHORITY

Since 2001, levels of the South Fork of the Crow River have caused floodgates to close on five separate occasions. During each of these events, the City of Delano experienced a 100-year storm event with the floodgates closed, which required the operation of four portable pumps to manage floodwaters. Despite the City's best efforts, a number of homes in the area experienced flooding and property damage.

The City of Delano, Wright County, Minnesota, applied for Hazard Mitigation Grant Program (HMGP) funding under Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act after significant flooding in 2002. The Federal Emergency Management Agency (FEMA) grants funds under this program for mitigation measures, projects, or actions proposed to reduce risk of future damage, hardship, loss, and suffering from future disasters. In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500 through 1508), and FEMA regulations for NEPA compliance (44 CFR Part 10), FEMA must fully understand and consider the environmental consequences of actions proposed for Federal funding. The purpose of this Environmental Assessment (EA) is to meet the FEMA responsibilities under NEPA and to determine whether to prepare a Finding of No Significant Impact or an Environmental Impact Statement for the proposed project.

1.2 PROJECT LOCATION AND SETTING

The City of Delano is in Wright County, approximately 25 miles west of the Minneapolis-St. Paul Metropolitan area in east-central Minnesota (Figure 1). The county is bordered on the north by the Mississippi River and on the east by the Crow River. The project site is located in the City of Delano, which lies along the Crow River in the southeastern part of the County. The project is proposed to be located on the western bank of the South Fork of the Crow River, between the river and Trunk Highway (TH) 12. The Burlington Northern Railway bridge borders the project site to the north (see project area photographs in Appendix A). There are approximately 42 structures bordering the project site to the south and west.

1.3 PURPOSE AND NEED

The objective of the FEMA HMGP is to assist the community in mitigating conditions that will continue to occur during future natural disasters. The City has requested Federal funding under HMGP to construct a lift station at the point where the South Fork of the Crow River and the railroad bridge intersect, to protect surrounding homes from flooding, and to relieve sanitary sewer backup.

There is an earthen emergency levee that runs through the City, along the eastern and western bank of the South Fork of the Crow River. When the river reaches a flood level of 9 feet, the City's floodgates close, preventing the flow of water out of the City. In the project area, this procedure, in combination with the levee, creates a landlocked basin. Runoff from a 600-acre drainage basin goes toward the river and accumulates in the neighborhoods that the levee protects from the river, flooding area homes and businesses. Prior to 2001, the west side drainage area had 15 different crests over the 10-foot flood level since 1990, over 8 different years. In each

case, the City had to pump water because high river levels closed the floodgates. Since 2001, the river has reached this level on five separate occasions.

In one of the most significant events, on June 24, 2002, flooding resulted in blockage of the outlet for the west side drainage area of the city. This forced the city to sustain a 100-year storm event with no outlet for the drainage system. Stormwater runoff from a significant watershed area pooled on the west side of the river, in the vicinity of the proposed lift station. The City was forced to establish a temporary emergency pumping station using portable pumps to push the water over the levee and into the river. In addition, the City provided equipment and materials for sandbagging efforts to protect a local business from flood damage. In all, five buildings (homes and businesses) sustained flood damage. In the five flood events since 2001, property damage has resulted on three occasions due to water backing up in this area.

From an engineering standpoint, a typical storm sewer for a landlocked basin is designed to handle two consecutive 100-year storm events. Based on stormwater modeling and the events of 2002, two consecutive flooding events within this area could affect up to 42 buildings. Based on County Assessor data, the total estimated market value of the 42 structures exceeds \$4,410,000. The City does not have documentation of actual damages and costs, but does have anecdotal history of damages. To project potential future damages, the City conservatively estimated damages at 5 percent of building value for half of the homes per past event year. The City estimated damages of \$1.1 million, or \$678,461 per flood year for 15 crests in 8 separate years since 1990.

In addition to private property damage, the City has sustained significant expense in emergency response efforts each time the river reaches flood stages. Over five events in 2001 and 2002, the City spent \$45,000 in emergency pumping efforts, including equipment rental, staffing, and equipment replacement. With private property damage, this totals an estimated \$701,000 per event year in costs associated with flooding.

In the past, flooding in this area has also resulted in sanitary sewer backup. The City instituted an inspection program to find and eliminate sump pump connections into the sanitary sewer, and also replaced a number of manhole covers in flood-prone areas to reduce the amount of floodwaters entering the sanitary sewer system through manholes. However, the City has determined that flooded basements also contribute to sanitary sewer problems. Floodwater enters basements and infiltrates the separate sanitary sewer system through shower and basement drains. The infiltration exceeds system capacity, forcing sewage and contaminated waters out into the basement. In addition to causing property damage, sanitary sewer system backup poses a significant and widespread health and safety risk to residents when raw sewage backs up into their homes. Therefore, improvement of the storm sewer system will also address the sanitary storm sewer issues in the project area.

Prolonged flood conditions and standing water in residential neighborhoods surrounding the proposed project site have also caused the area to be subject to sedimentation of wetlands, stormwater ponds, and stormwater pipes. It also causes surface erosion. Sedimentation impacts wetlands and further impairs the function of the drainage system, and surface erosion causes loss of vegetation and topsoil. The proposed improvements would help to reduce these impacts in the project area.

The purpose of the proposed project is to fulfill the need for more efficient (and cost-effective) handling of stormwater in flood events in order to protect human health, safety and private property. This project would protect surrounding homes and businesses from flooding, relieve sanitary sewer backup, and decrease the risk of surface erosion and sedimentation of the stormwater drainage system.

The CEQ has developed regulations for implementing NEPA. These Federal regulations require an evaluation of alternatives and a discussion of the potential environmental impacts of a proposed Federal action as part of the EA process. FEMA regulations, which establish the FEMA process for implementing NEPA, are set forth in 44 CFR, Subpart 10. This EA was prepared in accordance with FEMA regulations as required under NEPA. As part of this NEPA review, the requirements of other environmental laws and Executive Orders (EOs) are also addressed.

2.1 ALTERNATIVE 1 – NO ACTION

Under the No Action Alternative, a lift station would not be constructed, and improvements would not be made to the existing storm sewer or outlets to the South Fork of the Crow River. The City of Delano would be required to continue to emergency pumping operations. During major storm events, residents would continue to experience flooded basements and property damage. Health and safety risks for area residents as a result of sanitary sewer backup into homes would also continue, and the City of Delano would continue to expend local funds for emergency pumping costs.

2.2 ALTERNATIVE 2 – LIFT STATION WITH 80 CFS PUMPING CAPACITY ON FORMER BOCK PROPERTY (PREFERRED ALTERNATIVE)

Alternative 2 involves installation of a 1,000-square-foot lift station (approximately 32 feet by 32 feet), stormwater detention pond and associated piping on the former Bock property, between Trunk Highway (TH) 12 and the west bank of the South Fork of the Crow River, and directly south of the Burlington Northern Railway bridge (see Figure 2). The West Side Stormwater Lift Station would pump 80 cubic feet per second (cfs) of water to the pond and carry it through 100 feet of two new 30-inch pipes. The pipes would run from the lift station, across the emergency levee, and into the river (see Figure 3). This would reduce the flood elevation 4.6 feet by lowering the high water level (HWL) of the pond from 922 feet to 917.4 feet.

The new 0.25-acre wet-bottom pond would be created by expanding an existing ditch underneath the railroad bridge on the north border of the property (see Figure 3). Stormwater flows from the south and west through a series of ponds, wetlands, and ditches leading to this area. Currently, the pond area is connected to this system to the south via a 60-inch pipe at the western edge of the property. It is not anticipated the capacity of this existing pipe would need to be modified as a result of this project. Water that enters the area then discharges via a 60-inch pipe to the South Fork of the Crow River. This 60-inch discharge pipe would be retained to maintain normal water elevation of the pond. The two new 30-inch pipes would have the same point of discharge, but will only discharge when the lift station is operating.

The residence that occupied the site (Bock property) was purchased and demolished in 2004 using funds secured through a Flood Damage Reduction grant from the Minnesota Department of Natural Resources (MDNR). The bare area left behind has been covered to prevent erosion, but has not been re-seeded. As part of construction, existing turf grass would be cleared on the remainder of the site, and vegetation along the ditch would be disturbed. Levee vegetation would also be disturbed along the path of the proposed pipe. Vegetation will be restored to its existing condition after construction, and any existing bare area remaining would be re-seeded. Dewatering is anticipated during project construction.

Construction equipment and materials would be stored on-site, as the property is large enough to allow for ample storage and vehicle parking. A gravel access road will be created from Franklin Avenue, south around the pond to the lift station. This gravel access road would utilize a majority of the gravel driveway left behind when the house was demolished.

Traffic on TH 12 or Franklin Avenue will not be disrupted during construction of the lift station. The lift station and pipe will be constructed on City property, with primary access from existing

driveway off of TH 12. The entire project is anticipated to require up to 6 months to complete, and the planned completion date is October 2006.

2.3 ALTERNATIVE 3 - LIFT STATION WITH 80 CFS PUMPING CAPACITY FROM POND DT-P409

Alternative 3 involves installation of a 1,024-square-foot lift station on the west side of TH 12, at an existing pond located behind residential homes and small businesses (see Figure 3). This pond is identified in the Stormwater Management Plan as DT-P409. Parts of this pond have wetland characteristics, such as wetland vegetation and hydric soils. Similar to Alternative 2, this lift station would also pump 80 cfs of water. Approximately 600 feet of pipe would run from the lift station underneath and then parallel to Franklin Avenue, beneath TH 12, across the Bock property and over the emergency levee and into the river (see Figure 3). This would reduce the flood elevation 5 feet by lowering the HWL of the pond from 922 feet to 917.0 feet (Bonestroo, 1997).

Construction of the lift station would require excavation in the northern part of the pond to achieve appropriate pumping capacity for the proposed lift station to would allow for proper pump operation, which is defined as an approach velocity of flow to the lift station intake that is less than 0.5 feet per second (Bonestroo, 1997).

As part of construction, existing turf grass and minimal wetland vegetation would be cleared along the northeast side of Pond DT-P409 where the lift station is proposed. Dewatering is anticipated during project construction.

Construction equipment and materials would be stored on the Bock property site, or the site of Alternative 2.

Traffic on TH 12 and Franklin Avenue would not be disrupted during construction of the lift station. The two new 30-inch pipes under TH 12 would be directionally bored or jacked. The least ground-disturbing method feasible would be used to ensure that the roadway would not be disrupted. Main access to the lift station would be from TH 12. The entire project would require up to 6 months to complete, with a completion date of October 2006.

2.4 ALTERNATIVES CONSIDERED BUT DISMISSED

Construction of a lift station with 100 cfs pumping capacity was considered as an alternative to this project. However, this alternative was dismissed because it would provide no added flood protection at a higher cost.

The City of Delano also considered removing the homes within the area frequently affected by flooding. However, this alternative was dismissed because it would come at a much higher cost than the lift station, and would be more time-consuming to come to agreements with each of the homeowners and business owners.

3.1 PHYSICAL ENVIRONMENT

3.1.1 Geology, Seismicity, and Soils

The physical relief in the region that includes the project area was formed by pre-Wisconsin glaciation, resulting in outwash plains, gently rolling to steep hills, and numerous depressions filled with marshes, wetlands, and lakes. The South Fork of the Crow River bisects the City of Delano, creating a well-defined river valley. The City is largely situated on a relatively flat floodplain, although the project area is outside of the 100-year floodplain.

Bedrock underlying the project area is primarily composed of Cambrian and Precambrian sedimentary rock formations, consisting of sandstone, shale, and dolomite in upper layers, and sandstone, siltstone, and shale in lower layers. Bedrock is overlain with undifferentiated drift, which is primarily gray, calcareous, silty till that is largely unsorted and unstratified. There may be buried sand and gravel deposits of varying extents (Wenck Associates, 2004).

Due to its close proximity to the river, soils in the project area are from the Comfrey Series, more specifically Comfrey silty clay loam. Comfrey soils are deep, nearly level, poorly drained, silty soils. They are on bottomlands of streams and are subject to variable flooding and sometimes year-round ponding. Runoff and internal drainage are slow, and permeability is moderately slow (USDA, 1968).

Alternative 1 – No Action

Under the No Action Alternative, surface erosion and sedimentation of the stormwater drainage system would continue. In addition, with no lift station, sanitary sewer backup would continue to be a problem in the project area. Raw sewage could infiltrate the soil and cause contamination.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

It is not anticipated Alternative 2 would result in permanent negative impacts on geology, seismicity, or soils in the project area.

Areas along the path of the proposed 30-inch pipes would be open-cut from the lift station to the river, resulting in potential surface soil erosion. Approximately 200 cubic yards (CY) of excavation would be required along the path of the proposed pipe, plus 0.25 acres if excavation for the proposed pond. This would be temporary and limited to periods of construction. Soil disturbances as a result construction equipment operation at the site may also result in a temporary increase in surface soil erosion and compaction. This would be mitigated through the use of required Best Management Practices (BMPs) that include protecting erodible surfaces (i.e. through installation of silt fences). Earthwork would not be allowed during precipitation events. Additionally, exposed soils would be seeded with a turf grass mix comparable to that which currently exists, and compacted soils would be loosened by disking or raking prior to seeding. Overall, the project would reduce long-term surface erosion and sedimentation of the stormwater drainage system by more efficiently collecting and moving floodwaters.

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All excavated soils would be inspected for contamination during the excavation process. All clean soils would be disposed of at the City Compost Facility, located at the intersection of CR 17 and CR 30 in the northeast part of the City. Any suspected or known contaminated soils would be disposed of and handled by the City in accordance with applicable local, State, and Federal regulations. This includes proper transportation and deposit of the soil at an MPCA-approved disposal site.

The Comfrey soils in the area are considered hydric soils that may support wetland characteristics. The area was likely once occupied by a stream channel (USDA, 1968), but was filled and served as a residential lot for the past 40 years. The proposed stormwater pond provides a benefit of partially restoring the area to more of a wetland storage function. In the future, there may be opportunities to expand the site and implement more traditional wetland storage and vegetation.

Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

It is not anticipated that Alternative 3 would result in permanent negative impacts on geology, seismicity, or soils in the project area. Areas along the path of the proposed 30-inch pipes would be open-cut, resulting in potential surface soil erosion. Approximately 1,200 cubic yards (CY) of excavation would be required along the path of the proposed pipe. Although this would be temporary and limited to periods of pipe installation, it is significantly more excavation than what is required for Alternative 2. Soil disturbances as a result of construction equipment operation at the site may result in a temporary increase in surface soil erosion and compaction, and would be minimized through the use of BMPs as described under Alternative 2. Overall, the project would reduce long-term surface erosion and sedimentation of the stormwater drainage system by more efficiently collecting and moving floodwaters.

All excavated soils would be inspected for contamination during the excavation process. All clean soils would be disposed of at the City Compost Facility, located at the intersection of CR 17 and CR 30 in the northeast part of the City. Any suspected or known contaminated soils would be disposed of and handled by the City in accordance with applicable local, State, and Federal regulations. This includes proper transportation and deposit of the soil at an MPCA-approved disposal site.

3.1.2 Water Resources and Water Quality

As part of the Clean Water Act (CWA) Sections 404 and 401, each State is required to prepare a biennial report for the Environmental Protection Agency (EPA) on the quality of its water resources. States may measure water quality through a number of parameters, including examining fish and wildlife contaminants, water and sediment chemistry, biological integrity/physical habitat, and stream flow. The goal of the CWA is to achieve waters suitable for fishing and swimming. This is assessed in terms of aquatic life, aquatic consumption, and aquatic recreation.

Minnesota's 2004 Water Quality Report states that the 31.4-mile stretch of the South Fork of the Crow River from Buffalo Creek to the North Fork of the Crow River, which includes the project area, is listed as not supporting the aquatic life and aquatic consumption assessment criteria. It was not evaluated for aquatic recreation. The indicators of impairment for this stretch of river

SECTION THREE Affected Environment and Environmental Consequences

include fish, turbidity, and mercury. This stretch of the river also exceeds ecoregion norms for total phosphorus, nitrite/nitrate, oxygen demand, and suspended solids (Minnesota Pollution Control Agency [MPCA], 2004).

As a result, this segment of the river is on the Impaired Waters List under Category 5A. Under Category 5, the water body does not meet applicable water quality standards or is threatened for one or more designated uses by one or more pollutants. Historically, agricultural runoff and faulty septic systems/wastewater treatment systems have been the primary causes of water pollution in this region.

Potential water quality impacts as a result of any new project construction generally originate from the following:

- Erosion of exposed soils during construction;
- Reduced infiltration and increased runoff from the construction of new impervious surfaces;
- Pollutants from automobiles, such as oil, grease, and metals, that collect on impervious surfaces and are washed off by runoff;
- Increased runoff that overburdens existing drainage systems, causing flooding; and
- Fill or construction in floodplains that affects flood levels in streams and rivers.

Both the Minnesota Department of Natural Resources (MDNR) Waters Division and the United States Army Corps of Engineers (USACE) were sent information describing and illustrating the proposed project. In an e-mail dated October 13, 2004, Patricia Fowler, MDNR Area Hydrologist, indicated that the proposed project does not impact any public waters of the State, and MDNR authorization is not required. She noted that a MDNR Water Appropriation Permit would be required if proposed construction dewatering would exceed 10,000 gallons per day or 1 million gallons per year (See Appendix B). The proposed project alternatives would require dewatering due to construction of lift station footings and intakes. The Water Appropriation Permit will be applied for through the MDNR. The MDNR did not voice any concerns about impacts to the South Fork of the Crow River.

USACE also reviewed the project and did not voice any concerns about impacts to the South Fork of the Crow River (Appendix B). Wetlands are addressed in Section 3.2.2.

The proposed project would slightly increase the amount of impervious surface by constructing the lift station. However, the project would help to decrease the overburden on existing drainage systems that currently results in flooding and septic system backup during significant storm events. Erosion of exposed soils would be managed by BMPs as described in Section 3.1.1.

Potential sedimentation due to temporary construction impacts is discussed below. The proposed project would direct water through existing wetlands, which are discussed in Section 3.2.2.

Special Designation Areas

The project does not lie within the MNRRA or areas protected by the Wild and Scenic Rivers Act (WSRA). There are no other Federal- or State-designated areas within the project area. No further action is necessary under MNRRA, WSRA, or any State-designated program.

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Alternative 1 – No Action

Under the No Action Alternative, periodic flooding and sanitary sewer backup during heavy rainfall events would still occur. Residents would continue to be at risk from raw sewage infiltrating the storm sewer and potentially reaching surface waters and drinking water supplies. Continued flooding would also result in increased erosion and sedimentation of water bodies.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

Alternative 2 does not lie within any streams, lakes, or rivers, but stormwater would outlet from the proposed lift station into the South Fork of the Crow River. The lift station would direct stormwater to the river in a more controlled manner than do the emergency pumps that currently operate during storm events. Alternative 2 would not cause pollution or long-term sedimentation on the South Fork of the Crow River.

Alternative 2 has the potential for minor impacts on water quality as a result of construction grading, which may cause temporary sedimentation of the new pond due to erosion of bare soils. It is possible that this sedimentation could reach the South Fork of the Crow River. BMPs for erosion control during construction would be implemented as outlined in erosion control plans. BMPs may include protecting erodible surfaces and avoiding construction during precipitation events. The City of Delano has an approved Stormwater Management Plan, which outlines BMPs that are required through City ordinance (copies available at Delano City Hall, 952 Bridge Street). The following ordinances are cited in the plan and have BMP provisions for protecting water resources and water quality (Bonestroo, 1997):

- Grading, Erosion, and Sediment Control Ordinance
- Wetland Systems District Ordinance
- Floodplain District Ordinance

Each of these ordinances would be adhered to during project construction. A National Pollution Discharge Elimination System (NPDES) permit would also be obtained from the MPCA, as the project would involve more than one acre of grading. The City has initiated this permit process by preparing a Stormwater Pollution Prevention Plan (SWPPP), which lists the BMPs that would be used as part of the project, and how and when the BMPs would be implemented. The plan states the BMPs would all be in place prior to any excavation/construction, and would be maintained until viable turf or ground cover has been established. BMPs included in the SWPPP are:

- Rock construction entrance
- Erosion control blankets (Bioroll blanket system)
- Silt fence
- Inlet sediment filters

The City has initiated preparation of this plan, and will submit the plan to the selected contractor. The BMP detail sheets that would be included in the SWPPP are included in Appendix C. It would be the contractor's responsibility to use the SWPPP information to submit an NPDES

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permit to the Minnesota Pollution Control Agency (MPCA). This would be submitted 48 hours prior to construction, as mandated in permit requirements. The permit acts as a notification so the MPCA can monitor the project.

Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

Alternative 3 does not lie within any streams, lakes, or rivers, but stormwater would discharge from the proposed lift station via pipe into the South Fork of the Crow River. The lift station would direct stormwater to the river in a more controlled manner than do the emergency pumps that currently operate during storm events. Overall volume and condition of the water would remain the same as it is today. Alternative 3 would not cause pollution or long-term sedimentation on the South Fork of the Crow River.

During construction, it is possible that this sedimentation could reach the South Fork of the Crow River. BMPs for erosion control during construction would be implemented as described above under Alternative 2. Sedimentation impacts would be temporary and last only for duration of construction.

Ordinances as described under Alternative 2 would be adhered to during project construction. A NPDES permit would also be obtained from the MPCA, as the project would involve more than one acre of grading.

3.1.3 Floodplain Management (EO 11988)

Floodplain refers to the 100-year floodplains as defined by FEMA. They are shown on Flood Insurance Rate Maps or Flood Hazard Boundary Maps for all communities participating in the National Flood Insurance Program (NFIP).

The 100-year floodplain designates the area inundated during a flood that has a 1-percent chance of occurring in any given year. FEMA also identifies the 500-year floodplain, which designates the area inundated during a flood that has a 0.2-percent chance of occurring in any given year. Both of the project alternatives are located within the 100-year floodplain (see Figure 4).

EO 11988 directs Federal agencies to take action to minimize occupancy of and modification to floodplains. Specifically, EO 11988 prohibits FEMA from funding construction in the floodplain unless there are no practicable alternatives. FEMA regulations for complying with EO 11988 are promulgated in 44 CFR Part 9. FEMA applies the Eight-Step Planning Process as required by regulation to meet the requirements of EO 11988 (see Appendix D).

Both the MDNR Waters Division and the USACE were sent information describing and illustrating the proposed project. In an e-mail dated October 13, 2004, Patricia Fowler, MDNR Area Hydrologist, noted that the proposed project does lie within the 100-year floodplain, and should be either floodproofed to meet State building code standards or elevated above the regulatory flood protection elevation in accordance with the City's floodplain ordinance. USACE also reviewed the project and did not voice any concerns about impacts to the 100-year floodplain (Appendix B).

FEMA applies the Eight-Step Planning Process as required by regulation to meet the requirements of EO 11988. This step-by-step analysis is included in Appendix D of this document.

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Alternative 1 – No Action

No occupancy or direct modification to the 100-year floodplain would occur; therefore, EO 11988 is not applicable.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

Alternative 2 lies within the 100-year floodplain. Excavation to create the pond necessary for the lift station would increase water storage in the floodplain. This increase in storage is anticipated to offset the 1,000 square feet that will be occupied by the lift station structure. The project would direct floodwaters more efficiently to the South Fork of the Crow River, decreasing the need for long-term flood storage and allowing for floodplain vegetation to withstand shorter durations of immersion. The 32 by 32-foot lift station structure would occupy approximately 5,120 cubic feet of floodplain, assuming a 5-foot vertical impact (Torve, personal communication). Approximately 12,000 cubic feet of excavation would be required to create the proposed stormwater pond. Therefore, this project would result in a net gain of approximately 6,680 cubic feet of storage in the floodplain. A portion of this gain could also cover the 2,870 cubic foot loss of flood storage expected at the proposed East Side Lift Station location, also located within Delano's 100-year floodplain. See Section 4, Cumulative Impacts for additional information. The project would also reduce the time that it takes for water to reach the river by providing a more efficient outlet system for the project drainage area. The upstream watershed of the South Fork of the Crow River is approximately 1,200 square miles (768,000 acres). According to the City's Stormwater Management Plan, proposed Alternative 2 improvements would impact a watershed that is approximately 72 acres. Thus, the watershed affected by the proposed project is less than 0.01 percent of the upstream watershed. In addition, the proposed project would pump 40 cfs of water during a 100-year flood event. The National Weather Service categorizes "minor" flooding in South Fork of the Crow River at Delano as 8 to 12 feet. "Moderate" flooding is considered to be 12 to 14 feet, and "major" flooding is considered to be above 14 feet (National Weather Service, 2005). Since 2001, a majority of flooding has occurred in the moderate category (U.S. Army Corps of Engineers, 2005). Using the June 2002 floods as an example, the river reached a flood stage of approximately 13.5 feet. At this stage, the South Fork of the Crow River is flowing at 6,489 cfs (National Weather Service, 2005). The impact of the addition of 80 cfs at this stage is negligible at 1.2 percent. Based on this analysis, the proposed project will not negatively impact the elevation of the 100-year flood of the South Fork of the Crow River, and would not cause concerns for downstream properties.

The lift station structure would be flood proofed in accordance with State building code standards, and would adhere to regulations established in the local Floodplain District Ordinance.

Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

Alternative 3 also lies within the 100-year floodplain. Excavation of DT-P409 would occur to achieve appropriate water velocity for the intake structure. This would increase storage within the floodplain. The project would direct floodwaters more efficiently across the floodplain and into the South Fork of the Crow River, decreasing the need for long-term flood storage and allowing for floodplain vegetation to withstand shorter durations of immersion. The project

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would not have any negative impact on floodplain elevation under this alternative. In comparison to Alternative 2, this alternative would take longer to move water, given the extra pipe needed to get water to the river.

The lift station structure would be flood proofed in accordance with State building code standards, and would adhere to regulations established in the local Floodplain District Ordinance.

3.1.4 Air Quality

The Clean Air Act (CAA) of 1970, as amended, requires the EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The CAA establishes two types of national air quality standards: primary and secondary. Primary standards set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, visibility, and damage to animals, crops, vegetation, and buildings.

The EPA Office of Air Quality Planning and Standards has set NAAQS for six principal pollutants called “criteria” pollutants: sulfur dioxide, nitrogen dioxide (NO₂), carbon monoxide (CO), lead, particulate matter of 10 microns or less (PM₁₀), and ozone (O₃).

The EPA has designated specific areas throughout Minnesota as NAAQS attainment or non-attainment areas. Non-attainment areas are those that do not meet, or that contribute to ambient air quality in a nearby area that does not meet, either the national primary or the secondary air quality standards for a pollutant. According to the EPA, Wright County is in attainment for all six criteria pollutants (EPA, 2003).

Alternative 1 – No Action

No construction activities would take place under this alternative; therefore, there would be no impact to air quality.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

Implementation of Alternative 2 would involve limited use of heavy construction equipment, such as a backhoe, equipment trucks, power tools, and concrete trucks. The duration of the proposed project activities is anticipated to be approximately 3 months.

Heavy construction equipment is a source of fugitive dust emissions that may have a temporary effect on air quality. Emissions occurring during construction would be associated with earth moving (grading). Dust emissions can vary from day to day, depending on the level of activity, the specific operations, and weather. Emissions from fuel-burning internal combustion engines (heavy equipment and earth-moving machinery) could temporarily increase the levels of volatile organic compounds and some of the priority pollutants, including CO, NO₂, O₃, and PM₁₀.

To mitigate for potential air quality impacts from fugitive dust and equipment emissions, vehicle engines would be kept in good repair and turned off while not in use, and the project area would be watered in dry conditions. The same measures would also be taken in the identified construction staging areas.

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Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

Implementation of Alternative 3 would involve limited use of heavy construction equipment, as described above under Alternative 2. The duration of the proposed project activities is anticipated to be approximately 3 months.

Heavy construction equipment is a source of fugitive dust emissions that may have a temporary effect on air quality. Emissions occurring during construction would be associated with earth-moving (grading). Dust emissions can vary from day to day, depending on the level of activity, the specific operations, and weather. Emissions from fuel-burning internal combustion engines (heavy equipment and earth-moving machinery) could temporarily increase the levels of volatile organic compounds and some of the priority pollutants, including CO, NO₂, O₃, and PM₁₀.

Mitigation measures to control fugitive dust emission would be the same as those described under Alternative 2.

3.2 BIOLOGICAL ENVIRONMENT

3.2.1 Terrestrial and Aquatic Environment

Terrestrial Environment

The proposed project site includes the site at which the lift station and pond will be constructed, including areas of proposed pipe installation leading to the river.

A biologist with URS Group (URS) performed a site visit on September 17, 2004. The lift station would be constructed on the west bank of the South Fork of the Crow River, next to the levee just south of the railroad bridge. The proposed lift station would draw water from a new pond during high-water events, and would force water via pipe past the levee, with discharge into the river. The home located on the project site was purchased by the City in 2003 and was subsequently removed. Parts of the site are currently bare or covered with turf grass. Near the levee and along the river, vegetation consists of sandbar willow (*Salix exidua*), elm (*Elmus sp.*), grape (*Vitus sp.*), brome (*Bromus inermis*), and sumac (*Rhus typhina*). Vegetation in the ditch bordering the site to the north consists of box elder (*Acer negundo*), reed canary grass (*Phalaris arundinaceae*), bur reed (*Sparganium erectum*), jewelweed (*Impatiens capensis*), cattail (*Typha latifolia*), smartweed (*Polygonum penslyvanicum*), and stinging nettle (*Urtica diocea*). The presence of these species indicates wetland characteristics in the ditch area, as described in Section 3.2.2.

Wildlife that may use the project site include mammals such as white-tailed deer (*Odocoileus virginianus*), Eastern cottontail rabbit (*Sylvilagus floridanus*), gray squirrel (*Sciurus carolinesis*), and raccoon (*Procyon lotor*), which likely use the site for movement between wooded areas. Songbirds will move through the area as habitat is suitable. Various songbirds were the only wildlife observed during the site visit.

Aquatic Environment

Water directed by the proposed lift station would be discharged into the nearby South Fork of the Crow River, which contains a variety of fish species, including, but not limited to: walleye,

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northern pike, smallmouth bass, sunfish, bluegill, black crappie, catfish, bullhead, carp, and white sucker.

Ponds occasionally attract ducks and geese, and wetland areas or wet ditches likely provide temporary aquatic habitat, primarily in the spring, to species such as wood ducks, amphibians (frogs, toads, and salamanders), reptiles (snakes and turtles), and songbirds. Presence of hydric soils on-site indicate the potential for additional wetland habitat to be created in the future. Wetland impacts are discussed in Section 3.2.2.

Alternative 1 – No Action

Under this alternative, no changes to the existing terrestrial or aquatic environment would occur.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

Terrestrial Environment

The effects of Alternative 2 would include temporary disturbances to terrestrial habitat during project implementation. Existing turf grass would be removed in the area where the new pond would be created, and possibly in areas where construction materials are stored. Earth along the path of the proposed pipe from the lift station past the levee to the river would be open-cut, disturbing existing vegetation. Some ditch vegetation would also be disturbed during excavation of the new pond. Following project construction, vegetation will be reestablished to its current condition in all locations, except where existing bare dirt and turf grass has been replaced by the pond. Any remaining bare areas would be re-seeded to blend with surrounding vegetation.

Effects to the terrestrial environment would be limited and temporary until vegetation becomes reestablished. Existing habitat is limited due to the dominance of turf grass on the site, although the ditch and riverbank provide suitable habitat for smaller animals. Construction noise could disturb some species, but this impact would be temporary and last only for the duration of construction. Heavy construction equipment would compact soils in the project area. Soils compacted by construction machinery would be loosened by methods such as disking or raking. Overall, the existing terrestrial environment would be maintained, with exception of the new pond.

Aquatic Environment

The aquatic environment would be enhanced by the addition of the new pond, which may provide habitat for waterfowl such as ducks and geese. Limited temporary construction impacts to aquatic habitats would occur. These impacts would last for the duration of construction and would include removal of vegetation, soil erosion, and noise impacts. The proposed project would create additional flood storage and would assist in restoring water to normal levels more quickly after flooding, and is not anticipated to have negative long-term consequences on aquatic resources.

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Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

Terrestrial Environment

The effects of Alternative 3 would include temporary disturbances to terrestrial habitat during project implementation. Existing wetland vegetation and turf grass along the bank of Pond DT-P409, where the lift station would be constructed, would be removed. The predominant vegetation at this site is reed canary grass. Along the north side of Franklin Avenue in the railroad ditch, vegetation such as box elder, reed canary grass, bur reed, jewelweed, cattail, smartweed, and stinging nettle would also be cleared along the path of the pipe. Following project construction, similar vegetation would be reestablished along the banks of Pond DT-P409, the railroad ditch area, and the levee. This alternative would require 600 feet of pipe through more heavily vegetated areas, compared to 100 feet of pipe over less vegetated areas under Alternative 2.

Effects to the terrestrial environment would be limited and temporary until vegetation becomes reestablished. Construction noise could disturb some species, but this impact would be temporary and last only for the duration of construction. Heavy construction equipment would compact soils in and around the project area and construction staging area. Soils compacted by construction machinery would be loosened by methods such as disking or raking, and replanted with similar vegetation. Overall, the existing terrestrial environment would be maintained in the long term.

Aquatic Environment

Limited temporary impacts to aquatic habitats would occur. These impacts would last for the duration of construction and would include removal of vegetation, soil erosion, and noise impacts. The proposed project would not impact water levels, but would rather assist in restoring water to normal levels more quickly after flooding, although it would be a slightly slower response than that of Alternative 2. The proposed project is not anticipated to have negative consequences on aquatic resources.

3.2.2 Wetlands (EO 11990)

A wetland is defined by State and Federal regulations as an area that exhibits three distinct characteristics: 1) hydric soils; 2) inundation or saturation at or near the ground surface for a period of the growing season; and, 3) a prevalence of vegetation adapted to wet soil conditions. Wetlands are recognized as having important functions, including flood storage, water quality, wildlife and fisheries habitat, vegetation diversity, shoreland protection, aesthetics, and public recreation, resulting in their protection by local, State, and Federal regulations. These regulations require that wetland impacts be avoided or minimized to the extent feasible, with wetland replacement required for unavoidable impacts. Impacts that are unavoidable must be replaced at a ratio of at least 2 acres of wetland creation or restoration for every acre of wetland impact.

Under EO 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and preserve and enhance their natural and beneficial values. If a Federal action has the potential to impact jurisdictional waters of the United States as defined by Section 404 of the CWA, the USACE is contacted for appropriate permitting requirements. Section 404 of the CWA authorizes the USACE to issue permits, after notice and opportunity for public hearings,

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for the discharge of dredged or fill material into waters of the United States at specified disposal sites. The MDNR has regulatory authority over activities within selected wetlands and waters, as identified on Public Waters Inventory maps, published by the MDNR. The City of Delano has regulatory authority for all wetlands within its legal boundary.

FEMA applies the Eight-Step Planning Process as required by regulation to meet the requirements of EO 11990. This step-by-step analysis is included in Appendix D of this document.

In 1991, the State of Minnesota enacted the Wetland Conservation Act (WCA). This legislation authorized Local Governmental Units (LGUs) to administer State wetland regulations. The WCA requires that activities resulting in the draining or filling of a wetland must be avoided or minimized. Impacts that are unavoidable must be replaced at a 2:1 ratio. At least the first 1:1 must be creation of new wetland or purchase of wetland bank credits. The remaining 1:1 can be in the form of plantings or other creative mitigation on the site (MDNR-approved fishing areas, habitat improvements, etc.). The WCA is administered by the Board of Water and Soil Resources (BWSR) and implemented by LGUs. In those cases where wetland impacts occur on State land, the LGU is the State agency with administrative responsibility for that land.

Wetlands were identified using National Wetland Inventory (NWI) mapping and verified during a site visit on September 17, 2004. The proposed project is located in a lowland area with soils that are silty/clayey in nature, and are conducive to wetland or seasonally flooded environments. Although not identified on NWI maps, the railroad ditch bordering each of the alternative sites to the north exhibits wetland characteristics through its vegetation and the presence of water during the site visit. Parts of the Pond DT-P409 at the Alternative 3 site are classified by the NWI as PEMCd wetland. Typical vegetation includes reed canary grass (*Phalaris arundinaceae*) and jewelweed (*Impatiens capensis*).

Both the MDNR Waters Division and the USACE were sent information describing and illustrating the proposed project. In an e-mail dated October 13, 2004, Patricia Fowler, MDNR Area Hydrologist, indicated that the proposed project does not impact any public waters of the State (including wetlands), and MDNR authorization is not required. Following additional phone consultation, the USACE issued an email dated February 21, 2005, that stated a Federal permit is not required for excavation of the new pond under Alternative 2, as long as it does not involve the discharge of dredge or fill materials within water of the United States, which it does not (see Appendix B). Installation of the infall/outfall structures at the pond and to the river would be authorized by a non-reporting General Permit (Installation of Outfall Structures).

Alternative 1 – No Action

Under this alternative, no changes to the existing wetlands would occur.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

There are no jurisdictional wetlands located within the vicinity of the proposed lift station. The railroad ditch identified by the URS biologist as having wetland characteristics will be temporarily disturbed during pond excavation. To mitigate the temporary impacts, the disturbed wetland areas would be returned to their original elevations and would be replanted with native

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vegetation. Alternative 2 will not result in long-term impacts to the area. The USACE has concurred with this determination. This alternative does not require 2:1 replacement requirements under the WCA or MDNR.

The Comfrey soils in the area are considered hydric soils that may support wetland characteristics. The area was likely once occupied by a stream channel (USDA, 1968), but was filled and served as a residential lot for the past 40 years. The proposed stormwater pond provides a benefit of partially restoring the area to more of a wetland storage function. In the future, there may be additional opportunities to expand the site and implement more traditional wetland storage and vegetation.

Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

Alternative 3 would create a more extensive temporary impact to the railroad ditch along the proposed utility corridor, as compared to Alternative 2. Existing vegetation would be stripped while excavation and pipe installation occurs. Impacts would be temporary and would last only for the duration of project construction.

As this is not a permanent impact, it does not carry 2:1 replacement requirements under the WCA or MDNR. To mitigate the temporary impacts, the disturbed wetland areas would be returned to their original elevations and would be replanted with native vegetation. Excavation of Pond DT-P409 is not considered a negative impact by the USACE (see Appendix B) and, therefore, impacts to the pond would also be temporary and limited to construction.

3.2.3 Threatened and Endangered Species

The Endangered Species Act of 1973 requires Federal agencies to determine the effects of their actions on threatened and endangered species of fish, wildlife, and plants and on their habitats, and to take steps to conserve and protect these species.

The MDNR was contacted in February 2003 for information regarding known occurrences of threatened, endangered, or otherwise significant plant and animal species, natural plant communities, and other natural features. In a letter dated November 10, 2003 (Appendix B), the MDNR concluded that there are four known occurrences of rare species or natural communities within an approximate 1-mile radius of the project site. However, based on the nature and location of the proposed project, the MDNR has determined that no known occurrences of rare features would likely be affected. In e-mail correspondence dated September 28, 2004 (Appendix B), the MDNR confirmed that this determination was still acceptable.

The United States Fish and Wildlife Service (USFWS) was sent a letter requesting review of the project for Federal threatened or endangered species. In e-mail correspondence dated January 6, 2005, the USFWS documented that the Federal threatened bald eagle (*Haliaeetus leucocephalus*) is known to nest in Wright County, typically in floodplain forest environments. However, no bald eagles are known to nest within the project area. Therefore, the USFWS does not believe the project will have any adverse impacts on the bald eagle or any other Federal threatened or endangered species (Appendix B).

No impacts to threatened and endangered species are anticipated under any of the alternatives.

3.3 HAZARDOUS MATERIALS

The Resource Conservation and Recovery Act (RCRA) defines hazardous waste as “a solid waste, or combinations of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of or otherwise managed.” While the definition refers to solids, it has also been interpreted to include semisolids, liquids, and contained gases (Wentz, 1989).

Hazardous materials and wastes are regulated in Minnesota through a combination of Federally mandated laws and State laws developed by the MPCA. Minnesota State Hazardous Waste Rules are contained in Chapter 7045 of the Minnesota Rules. Federal regulations governing hazardous wastes include RCRA; the Comprehensive Environmental Response, Compensation, and Liability Act; the Solid Waste Act; and the Toxic Substance Control Act.

To determine the presence and approximate location of known hazardous materials in the vicinity of the proposed project, information was utilized from a Phase 1 Environmental Site Assessment (ESA) prepared for the Bock property in July 2004 (Wenck Associates, 2004). The assessment included a database search conducted by Environmental Data Resources (EDR), an independent information service. The database search queried multiple Federal, State, and local hazardous materials and underground storage tank databases to identify sites of potential concern. Identified USTs were also cross-checked in the MPCA Storage Tank Database (MPCA, 2004).

The EDR report identified 14 sites within 0.25 mile of the proposed project site. Four of these sites are located east of the South Fork of the Crow River, and were eliminated from further consideration because migration of any potential contamination would reach the river before it would reach the project site.

Based on the Phase 1 Report and review of topographic maps, the proposed project site lies at an elevation of 932 feet. Of the remaining 10 sites identified in the EDR report, nine sites lie at elevations lower than the proposed project site, and therefore risk of contamination from these sites is not likely. Natural groundwater and surface water drainage in this area is due east, directly to the river.

One site approximately 400 feet southwest of the proposed project site is at a higher elevation than the project site. The site contains a LUST and three USTs. The USTs contain gasoline (two tanks) and diesel (one tank). These tanks are registered with the MPCA and have no reported violations. The LUST contains petroleum products and it is unknown if contamination has migrated off-site. This site is located side gradient (parallel) to the project site in terms of groundwater flow, and risk of contamination is unlikely.

A residence (the Bock property) occupied this site until August 2004. The Phase 1 ESA was completed before this residence was removed, and site reconnaissance was part of the evaluation. During the site visit, an Aboveground Storage Tank (AST) containing fuel oil was observed on the deck of the residence. No wall or floor staining was observed, and there was no other evidence that the tank had leaked any material. This tank was removed in accordance with local, State and Federal regulations when the residence was removed. There is no evidence that a

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release or material threat of release occurred from this AST. Based on these findings and the former location of the tank on a raised deck, risk of contamination from this former AST site is not likely.

No subsurface materials testing was conducted in the project area as part of this analysis. Conclusions are based on the Phase 1 ESA, EDR report, MPCA database search, and review of topographic maps and aerial photos.

Alternative 1 – No Action

Under the No Action Alternative, there would be no impacts to hazardous materials or wastes. Any unknown hazardous wastes and materials that may be present in the project area would not be altered from their present condition.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

Based upon the information reviewed, no impacts to hazardous materials or wastes are anticipated under Alternative 2.

Although subsurface hazardous materials are not anticipated to be present in the project area, excavation activities could expose or otherwise affect subsurface hazardous wastes or materials. Any hazardous materials discovered, generated, or used during implementation of the proposed project would be disposed of and handled by the City in accordance with applicable local, State, and Federal regulations.

Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

Alternative 3 does not incur any additional impacts or exposure to hazardous materials from those explained above under Alternative 2. Alternative 3 is a greater distance away from any of the identified sites, which poses even less of a risk than Alternative 2.

Although subsurface hazardous materials are not anticipated to be present in the project area, excavation activities could expose or otherwise affect subsurface hazardous wastes or materials. Any hazardous materials discovered, generated, or used during implementation of the proposed project would be disposed of and handled by the City in accordance with applicable local, State, and Federal regulations.

3.4 SOCIOECONOMICS

3.4.1 Zoning and Land Use

Wright County, Minnesota, was officially created in 1855. It is located in the east-central part of the state, and is one of seven Counties in the Twin Cities Metropolitan Area. The size of the County is approximately 716 square miles (Wright County, 2003), containing 17 cities and 18 townships. It is bordered by Sherburne and Stearns Counties to the north, Meeker County to the west, Carver and McLeod Counties to the south, and Hennepin County to the east. Due to Wright County's proximity to the Twin Cities, it is considered one of the fastest growing counties in the

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State. The population of Wright County has increased 31 percent since 1990, to an estimated 89,986 people.

The proposed project is located within the limits of the City of Delano, in the southeast corner of Wright County. The current population of the City is 3,847. It has experienced steady population growth, most recently experiencing a 38 percent growth in population between 1990 and 2000 (U.S. Census Bureau, 2000). It is anticipated that this trend will continue, with an estimated growth of 103 people per year through the year 2015 (Bonestroo, 1997).

The project site lies within City-owned property that is currently vacant, but most recently was the site of a residence that was purchased using funds secured through a Flood Damage Reduction grant from the MDNR. The provisions of this grant require that any structures placed on the site be floodproofed in conformance with State building code standards (Fick, personal communication). The project area is zoned residential, however public utilities are allowed by the zoning ordinance and a rezoning would not be required. The site is bordered to the north by the railroad bridge, with a vegetated ditch beneath it. On the east, the site is bordered by the flood protection levee, which is a 10-foot high earthen berm that is approximately 15 feet across. On the east side of the levee is the South Fork of the Crow River. To the south of the site is zoned residential, with private residences screened by trees. TH 12 borders the project site on the west, but across TH 12 are several homes and small businesses that have been historically affected by flood events, along with the homes to the south of the site. These structures bordering TH 12 are zoned commercial, and are surrounded by homes zoned as residential. These homes were built from the 1960s to present, and are identified by the City of Delano as mid- to lower value homes.

Alternative 1 – No Action

Under the No Action Alternative, there would be no land use and zoning changes. In a storm event, area residents would likely be affected by basement flooding and sanitary sewer backups. In the future, reoccurrence of these events could continue to depress home and land values of nearby properties.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

The Preferred Alternative would improve the drainage in the project area during storm events, protecting surrounding land uses from flooding and sanitary sewer backup. Property values in the area may increase as a result of flood control activities. Most of the surrounding area is already developed, and opportunities for additional development are also constrained by the City's Floodplain District Ordinance.

Improvements under Alternative 2 are consistent with current land use and zoning in the project area. No rezoning would be required due to the proposed project.

Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

Alternative 3 would improve the drainage in the project area during storm events, protecting surrounding land uses from flooding and sanitary sewer backup. Property values in the area may

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increase as a result of flood control activities. Most of the surrounding area is already developed, and opportunities for additional development are also constrained by the City's Floodplain District Ordinance.

Improvements under Alternative 3 are consistent with current land use and zoning in the project area. No rezoning would be required due to the proposed project.

3.4.2 Visual Resources

Visual resources refer to the landscape character (what is seen), visual sensitivity (human preferences and values regarding what is seen), scenic integrity (degree of intactness and wholeness in landscape character), and landscape visibility (relative distance of seen areas) of a geographically defined viewshed.

The general character of the project area is residential, with some small businesses nearby. The proposed project site was the previous home of a private residence, which was bought by the City and demolished in 2004. Vegetation is mostly turf grass and some bare dirt. The project site is relatively flat to gently sloping, is largely obscured by trees, and is not visible from residential homes in the area or drivers on TH 12.

Alternative 1 – No Action

Under the No Action Alternative, no activities would be undertaken and visual resources would not be affected. In a storm event, water would continue to collect in nearby neighborhoods.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

Under Alternative 2, new piping would be installed underground and would not be visible to the public. It is likely that most construction activities such as pipe installation, construction fencing, and equipment storage will be obscured from public view by existing trees on-site, although truck traffic would be seen entering the site from the entry drive off of TH 12. The new lift station and pond would also be mostly obscured from view, but would probably be visible if the viewer is looking due east from Franklin Avenue. Post-construction, any disrupted soil would be seeded with grass to match the existing turf. These would be temporary impacts and, overall, visual resources would be primarily unchanged under this alternative.

Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

Construction activities and vehicles would be more visible under Alternative 3, as construction of the lift station would take place directly behind residences along TH 12. Drivers traveling on Franklin Avenue would also likely see construction. Equipment would be stored at the former Bock property, and therefore would be screened from view as described under Alternative 2. However, these would be temporary impacts and last only for the duration of construction.

Post-construction, the lift station would be visible from existing residences along TH 12.

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3.4.3 Noise

Sound is most commonly measured in decibels (dB) on the A-weighted scale, which is the scale most similar to the range of sounds that the human ear can hear. The Day/Night Average Sound Level (DNL) is an average measure of sound. The DNL takes into account the volume of each sound incident, the number of times each incident occurs, and the time of day each incident occurs (nighttime sound is weighted more heavily because it is assumed to be more annoying to the community). The DNL descriptor is accepted by Federal agencies as a standard for estimating sound impacts and establishing guidelines for compatible land uses.

Noise, defined herein as unwanted or unwelcome sound, is regulated by the Federal Noise Control Act (NCA) of 1972. Although the NCA gives the EPA authority to prepare guidelines for acceptable ambient noise levels, it only requires those Federal agencies that operate noise-producing facilities or equipment to implement noise standards. EPA guidelines (and those of many Federal agencies) state that outdoor sound levels in excess of 55 dB DNL are “normally unacceptable” for noise-sensitive land uses such as residences, schools, and hospitals. Potential noise-sensitive receivers in the vicinity of the project consist of residences.

City ordinance dictates that construction can only occur between 7:00 AM and 7:00 PM Monday through Saturday.

Alternative 1 – No Action

Under the No Action Alternative, proposed activities would not occur and noise levels would be anticipated to remain at current levels.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

Noise associated with Alternative 2 would be limited to construction noise emitted by mechanical equipment, including a backhoe, equipment and concrete trucks, and construction tools. Noise typically associated with this type of construction equipment can measure as much as 80 dB within 50 feet of the source, attenuating at a rate of 6 dB per doubling of distance away from the source.

The proposed project lies in a primarily residential neighborhood, but one that is accustomed to the traffic noise on bordering TH 12. The closest residence is 250 feet to the south. There are also residences 250 to 300 feet to the west, but they are across TH 12 from the site. Also, trees around the project site and the elevated railroad tracks on the northern edge provide further buffering from noise. Construction activities would not be continuous, would be restricted to daylight hours, and are not anticipated to impact these residences.

Area residents may also experience daily noise from trucks hauling to and from the project site. However, project-related traffic would be temporary and spaced out over the daily hours of construction.

All activities would conform to the set hours of 7:00 AM to 7:00 PM as dictated by City ordinance. Construction equipment would be kept in good repair to ensure that proper noise muffling is maintained. Appropriate protective gear would be required to ensure the hearing protection of project workers.

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Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

Noise associated with Alternative 3 would be limited to construction noise emitted by construction equipment as described above under Alternative 2, as both alternatives are in the same general area. However, this alternative is much closer to residential-sensitive noise receivers, with the closest being residences less than 100 feet east of the project area. There are also fewer trees to buffer noise at this site; therefore, residents would experience a higher level of noise during periods of construction.

All activities would conform to the set hours of 7:00 AM to 7:00 PM as dictated by City ordinance. Construction equipment would be kept in good repair to ensure that proper noise muffling is maintained. Appropriate protective gear would be required to ensure the hearing protection of project workers.

3.4.4 Public Services and Utilities

There is currently a 60-inch storm sewer pipe that discharges to the South Fork of the Crow River from the site. This pipe provides day-to-day drainage and maintenance of the normal water level of ponds within stormwater drainage system, and would not be affected by the project alternatives. During storm events, temporary emergency pumps direct water over the levee and into the river. The lift station and new 30-inch pipes would replace this emergency pumping scenario. The 30-inch pipes will accommodate a continuous flow of 80 cfs during flood events.

There are also underground electric utilities in the project area, and an overhead electrical line that parallels the railroad tracks on the north side of the alternative sites. Delano Municipal Utilities is the local power supplier. There are no other utilities within the proposed project site.

Alternative 1 – No Action

Under the No Action Alternative, periodic flooding would still occur, and nearby residents would still experience flooded basements and structural damage, as well periodic backups of the sanitary sewer system.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

Under Alternative 2, the existing emergency pumping system would be upgraded with the construction of a lift station and more efficient routing of water during a storm event. This would allow for quicker restoration of normal water levels, and would alleviate the effects of the landlocked basin in residential and public areas when the floodgates close. It would also help to prevent infiltration of floodwaters into the sanitary sewer system, alleviating backup of sewage into residences.

Utility service interruptions would be minor and would occur only during final hookup. Area residents would be notified of any potential service interruptions prior to final hookup. The overhead electric line and poles would not be affected by this alternative.

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Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

Alternative 3 would provide the same benefits to the storm and sanitary sewer systems, as well as similar interruptions to electric service as described under Alternative 2. Area residents would be notified as described under Alternative 2.

3.4.5 Traffic and Circulation

The proposed project involves construction of a lift station on City property and replacement of existing storm sewer piping. The ground would be open-cut to allow for pipe installation.

The site of the Preferred Alternative is bordered on the west by TH 12, which is a principal arterial. Franklin Avenue leads into the proposed site from the west. The Burlington Northern Railway bridge borders the site to the north.

Alternative 1 – No Action

Under the No Action Alternative, the existing storm sewer would not be disturbed. However, flooding would likely continue to overtop TH 12 and parts of Franklin Avenue, which would temporarily close the roads to traffic.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

Under Alternative 2, current access to the site would be maintained. A permanent gravel access road would be constructed from the current driveway access, around the pond leading to the lift station. This road would be approximately 12 feet wide.

In addition, the proposed improvements would reduce the HWL in the area, thereby alleviating existing problems of water overtopping the adjacent roadways during flood events, and preventing the need for emergency pumps to direct water to the river. Alternative 2 would not draw additional traffic to the area, or affect traffic on adjacent roads. Trips to the site would be for maintenance purposes only.

Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

During construction of Alternative 3, Franklin Avenue would be closed for one day during pipe installation. One lane of the road would remain open to maintain access. For pipe installation beneath TH 12, the pipe would be directionally bored or jacked, and therefore the roadway would not be open-cut during installation. Traffic would not be affected on TH 12.

In addition, the proposed improvements would reduce the HWL in Pond DT-P409 and nearby areas, thereby alleviating existing problems of water overtopping the adjacent roadways during flood events, and preventing the need for emergency pumps to direct water over the roadway.

SECTION THREE **Affected Environment and Environmental Consequences**

3.4.6 Environmental Justice (EO 12898)

EO 12898 requires Federal agencies to make environmental justice part of their mission. Agencies are required to identify and correct programs, policies, and activities that have disproportionately high and adverse human health or environmental effects on minority and low-income populations. EO 12898 also tasks Federal agencies with ensuring that public notifications regarding environmental issues are concise, understandable, and readily accessible.

Socioeconomic and demographic data were studied to determine if a disproportionate number (greater than 50 percent) of minority or low-income people have the potential to be adversely affected by the alternatives. Table 2 summarizes the demographic information for Wright County and the City of Delano, in comparison to averages for the State of Minnesota.

Table 2. Demographic Information

	City of Delano	Wright County	State of Minnesota
Total Population	3,837	89,986	4,919,479
White	98.3%	97.9%	89.4%
African American	0.3%	0.3%	3.4%
American Indian/Alaska Native	0.2%	0.3%	1.1%
Asian	0.3%	0.4%	2.9%
Of Hispanic Origin	0.9%	1.1%	2.9%
Total Minority	1.7%	2.1%	10.6%
Median Household Income ¹	\$52,917	\$53,945	\$47,111
Persons Below Poverty Level ¹	0.03%	4.7%	7.9%

Source: U.S. Census Bureau, 2000; League of Minnesota Cities, 2004

¹1999 data

Based on review of the above information, none of the three alternatives would affect greater than 50% of any minority or low-income population in the project area. The City is consistent with Wright County and well below State averages for minorities and persons below poverty level. Additionally, Alternatives 2 and 3 would reduce potential future flooding of basements and backup of the sanitary sewer system, and would benefit all people residing within the project area. Therefore, the project is in compliance with EO 12898.

3.4.7 Safety and Security

Safety and security issues considered in this analysis include the health and safety issues of the area residents and the public at-large, and the protection of personnel involved in activities related to the implementation of the Preferred Alternative.

EO 13045, Protection of Children, requires Federal agencies to make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children.

Alternative 1 – No Action

Under the No Action Alternative, the potential for future flooding of basements and backup of sanitary storm sewers would remain. Residents would also be susceptible to injury or negative health impacts due to unsanitary conditions following flooding, including the significant and

SECTION THREE Affected Environment and Environmental Consequences

widespread health and safety risk to residents who experience raw sewage backup into their homes.

Since the No Action Alternative does not involve the employment of personnel to perform the project activities, there would be no potential risks to the personal safety of project workers.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

Under Alternative 2, storm sewer improvement activities could present safety risks to individuals performing the activities. To minimize risks to safety and human health, all project activities would be performed using qualified personnel trained in the proper use of the appropriate equipment, including safety precautions. In addition, all activities would be conducted in accordance with Occupational Safety and Health Administration (OSHA) regulations.

Implementation of Alternative 2 would increase the efficiency of the storm sewer system. This would reduce the risk of injury and negative health impacts to residents as a result of flooding and storm sewer backup.

Persons of all ages reside in the project area neighborhood. Additional protection will be ensured at the project site by the use of cautionary signage and protective fencing. Children would not be disproportionately affected by the proposed project; therefore, the project is in compliance with EO 13045.

Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

Under the Alternative 3, storm sewer improvement activities could present safety risks to individuals performing the activities. Actions to minimize risks to safety and human health would be completed as described under Alternative 2, as both alternatives are in the same general area and would require similar construction activities.

Implementation of Alternative 3 would increase the capacity of the storm sewer system. This would reduce the risk of injury and negative health impacts to residents as a result of flooding and storm sewer backup.

Persons of all ages reside in the project area neighborhood. Additional protection will be ensured at the project site by the use of cautionary signage and protective fencing. Children would not be disproportionately affected by the proposed project; therefore, the project is in compliance with EO 13045.

3.5 CULTURAL RESOURCES

In addition to review under NEPA, consideration of impacts to cultural resources is mandated under Section 106 of the National Historic Preservation Act, as amended, and implemented by 36 CFR Part 800. Requirements include identification of significant historic properties that may be affected by the proposed project. Historic properties are defined as archaeological sites, standing structures, or other historic resources listed in or eligible for listing in the National Register of Historic Places (NRHP) (36 CFR 60.4).

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As defined in 36 CFR Part 800.16(d), the Area of Potential Effect (APE) “is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist.”

In addition to identifying historic properties that may exist in the APE of the Preferred Alternative, FEMA must also determine, in consultation with the appropriate State Historic Preservation Office (SHPO), what effect, if any, the action would have on historic properties. Moreover, if the project would have an adverse impact on these properties, FEMA must consult with the SHPO on ways to avoid, minimize, or mitigate the adverse effect.

The Minnesota Department of Public Safety/Homeland Security and Emergency Management initiated consultation with the SHPO in October 2003. The SHPO responded in a letter dated December 2, 2003, that no properties eligible for or listed in the NRHP are within the project’s area of effect. In an e-mail dated October 1, 2004, the SHPO stated that its review findings from 2003 remain the same (See Appendix B).

Alternative 1 – No Action

Under the No Action Alternative, there would be no effects to cultural resources because proposed improvements would not occur.

Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (PREFERRED ALTERNATIVE)

Based on research and the response from SHPO, it is not anticipated that any NRHP-eligible or listed properties exist within the proposed project area; however, if artifacts or human remains are encountered during construction, work in the vicinity would be halted, and FEMA, the Office of the State Archaeologist (OSA), and the SHPO would be immediately contacted.

Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409

As under Alternative 2, it is not anticipated that any NRHP-eligible or listed properties exist within the project area for Alternative 3; however, if artifacts or human remains are encountered during construction, work in the vicinity would be halted, and FEMA, the OSA, and the SHPO would be immediately contacted.

3.5.1 Tribal Coordination

Initial American Indian group contacts were suggested by the Minnesota SHPO (see list in Section 7). Letters were sent to the list of potential consulting and interested parties on October 29, 2004.

Follow-up consultation was initiated on April 8, 2005. A response was received from the Shakopee Mdewakanton Community, which expressed an interest in any areas of potential historical significance that may be disturbed (see Appendix B). Consultation with the SHPO was addressed as discussed above. The American Indian community will continue to be notified of project progress, and will be involved in review of this EA.

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Table 2. Impact Summary Matrix

Description of Alternative	Alternative 1 – No Action	Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on Former Bock Property (Preferred Alternative)	Alternative 3 - Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409
	<ul style="list-style-type: none"> FEMA funds would not be used for improvements 	<ul style="list-style-type: none"> Construction of a 1,000-square-foot, 80 cfs lift station on the former Bock Property Excavation of new pond to feed lift station 100 feet of 30-inch piping to direct water over the levee and into the South Fork of the Crow River 	<ul style="list-style-type: none"> Construction of a 1,000-square-foot lift station on Pond DT-P409 600 feet of 30-inch piping to run along Franklin Avenue and under TH 12, through the Bock property and over the levee into the South Fork of the Crow River
Potential Impacts	No Action (Alternative 1)	Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on Former Bock Property (Preferred Alternative)	Alternative 3 - Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409
Geology, Seismicity, and Soils	<ul style="list-style-type: none"> No impacts 	<ul style="list-style-type: none"> Temporary soil disturbance; surface erosion may occur during construction along approximately 100 linear feet of pipe installation Approximately 200 cubic yards (CY) of excavation along path of proposed pipe 0.25-acre pond area to be excavated Geologic framework of area would not be affected 	<ul style="list-style-type: none"> Temporary soil disturbance; surface erosion may occur during construction along approximately 600 linear feet of pipe installation Approximately 600 CY of excavation along path of proposed pipe Geologic framework of area would not be affected

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Potential Impacts	No Action (Alternative 1)	Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on Former Bock Property (Preferred Alternative)	Alternative 3 - Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409
Water Resources and Water Quality	<ul style="list-style-type: none"> No immediate impacts Flooding and sanitary sewer backups would still occur 	<ul style="list-style-type: none"> Potential for minor impact on water quality as a result of construction grading In compliance with MNRRA¹ and MRCA² requirements Not a Wild and Scenic River Requires dewatering during construction 	<ul style="list-style-type: none"> Potential for minor impact on water quality as a result of construction grading In compliance with MNRRA¹ and MRCA² requirements Not a Wild and Scenic River Requires dewatering during construction
Floodplain Management	<ul style="list-style-type: none"> EO 11988 is not applicable to this alternative 	<ul style="list-style-type: none"> Lift station would occupy the floodplain New pond to be constructed 100-year-flood elevation of South Fork of Crow River reduced by 5.4 feet (Bonestroo, 1997) 	<ul style="list-style-type: none"> Lift station would occupy the floodplain Excavation to deepen existing pond 100-year-flood elevation of South Fork of Crow River reduced by 5.0 feet (Bonestroo, 1997)
Air Quality	<ul style="list-style-type: none"> No impacts 	<ul style="list-style-type: none"> Temporary emissions from heavy construction equipment 	<ul style="list-style-type: none"> Temporary emissions from heavy construction equipment
Terrestrial and Aquatic Environment	<ul style="list-style-type: none"> No immediate impact 	<ul style="list-style-type: none"> Temporary disturbances due to noise Removal of turf grass and streambank vegetation along 100 feet of pipe installation during construction Existing vegetation would be re-established 	<ul style="list-style-type: none"> Temporary disturbances due to noise Removal of turf grass and some wetland ditch species along 600 feet of pipe installation during construction Existing vegetation would be re-established

¹ Mississippi National River and Recreation Area

² Mississippi River Critical Area

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Potential Impacts	No Action (Alternative 1)	Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on Former Bock Property (Preferred Alternative)	Alternative 3 - Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409
Wetlands	<ul style="list-style-type: none"> No changes to the existing wetlands would occur 	<ul style="list-style-type: none"> No wetland impacts 	<ul style="list-style-type: none"> Project near PEMCd³ wetland, no impact Temporary vegetation impacts to wetland ditch vegetation along north side of Franklin Avenue
Threatened and Endangered Species	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> No impact
Hazardous Materials and Wastes	<ul style="list-style-type: none"> No impact 	There is one SQG ⁴ site within 0.25 mile of this alternative; however, no violations have been reported, and the site is not a threat	<ul style="list-style-type: none"> There is one SQG⁴ site within 0.30 mile of this alternative; however, no violations have been reported, and the site is not a threat
Zoning and Land Use	<ul style="list-style-type: none"> No impact Continued flooding compromises property values in the area 	<ul style="list-style-type: none"> Project is compatible with existing and future land use 	<ul style="list-style-type: none"> Project is compatible with existing and future land use
Visual Resources	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> Minimal temporary impacts due to construction equipment and soil disturbance during construction; most of site screened by trees 	<ul style="list-style-type: none"> Temporary impacts due to construction equipment and soil disturbance during construction More visible to nearby residences
Noise	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> Temporary noise impacts only Closest residence 250 feet away and screened by trees 	<ul style="list-style-type: none"> Temporary noise impacts only Residences less than 100 feet east of this alternative would experience noise impacts during construction

³ Palustrine, Emergeny, Seasonally Flooded, Partially Drained/Ditched

⁴ Small Quantity Generator

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Potential Impacts	No Action (Alternative 1)	Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on Former Bock Property (Preferred Alternative)	Alternative 3 - Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409
Public Services and Utilities	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> Minimal disruption to utilities; brief service interruption only at final hook-up 	<ul style="list-style-type: none"> Minimal disruption to utilities; brief service interruption only at final hook-up
Traffic and Circulation	<ul style="list-style-type: none"> Surrounding roadways would continue to overtop with water during storm events 	<ul style="list-style-type: none"> Equipment staging would occur on-site Site access via TH12/Babcock Boulevard Alleviates overtopping of roads during flooding 	<ul style="list-style-type: none"> Equipment staging would occur on Bock property Site access via TH 12/Babcock Boulevard Alleviates overtopping of roads during flooding Closure of one lane of Franklin Avenue for one day
Environmental Justice	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> No impact
Safety and Security	<ul style="list-style-type: none"> Future flooding could result in compromised access on surrounding roadways No potential risks to the personal safety of project workers 	<ul style="list-style-type: none"> Safety risks created to individuals performing project activities Project would prevent water from overtopping roads and provide safer driving conditions during storm events 	<ul style="list-style-type: none"> Safety risks created to individuals performing project activities Project would prevent water from overtopping roads and provide safer driving conditions during storm events
Cultural Resources	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> No potential archaeological sites No historic sites eligible for listing on the NRHP⁵ Tribal consultation has taken place 	<ul style="list-style-type: none"> No potential archaeological sites No historic sites eligible for listing on the NRHP Tribal consultation has taken place

⁵ National Register of Historic Places

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Cumulative impacts are those effects on the environment that result from the incremental effect of the action when added to past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time.

Four HMGP projects are currently proposed within the City of Delano. The West Side Lift Station project is one of these four projects. The other three include the Elm Avenue Diversion, the East Side Lift Station, and Alley Resurfacing (Figure 5). All of these projects are designed to control excessive flooding that has plagued the City of Delano in recent years. On many occasions in 2001 and 2002, the City was forced to conduct emergency pumping and sandbagging activities to attempt to protect local homes and businesses.

Cumulatively, a basic hydraulic analysis of total stormwater discharge from the four projects compared to total watershed size indicates these projects will not have substantial negative impacts on the South Fork of the Crow River system or the floodplain system as a whole (Bonestroo, 1997). The Elm Avenue Diversion would direct water to the area south of the high school, which is part of the same system that would eventually run through the East Side Lift Station and to the South Fork of the Crow River. The Alley Resurfacing Project would more efficiently direct water to existing storm sewers in the downtown area. The West Side Lift Station would serve the west part of the City, collecting stormwater for discharge to the river. Collectively, during a 100-year flood event the projects would deliver approximately 120 cfs to the South Fork of the Crow River. This is derived from the 40 cfs pumping capacity at East Side Lift Station (which would collect water from the Elm Avenue Diversion and the Alley Resurfacing Project) and the 80 cfs of pumping capacity at the West Side Lift Station. Using the June 2002 flood example of 13.5 feet, the South Fork of the Crow River is flowing at 6,489 cfs (National Weather Service, 2005). The impact of the addition of 120 cfs is negligible at 1.8 percent. This slight increase would not increase the elevation of the 100-year floodplain or impact downstream areas.

With these projects implemented, the City of Delano would be better able to manage its stormwater and floodwater during and after storm events. This allows for quicker emergency response, and also contributes positively to the overall quality of life for Delano residents. Better water management would reduce risk of property damage from flooding, and protect residents from health and safety risks associated with excess water and sewer backups. The City would be able to expend money on other necessary municipal improvements and programs, instead of funding extensive emergency pumping activities.

It is not anticipated that floodplain development would be promoted as a result of implementing the proposed projects. The City of Delano has an existing Floodplain District Ordinance that prohibits development within the floodway of the South Fork of the Crow River within the City. In addition, the City has actively pursued and successfully obtained Flood Damage Reduction (FDR) grant funding from the WDNR to purchase and remove repetitive loss properties within the 100-year floodplain. The former Bock property, at the site of the proposed West Side Lift Station, was purchased under this grant. The City continues to identify and pursue funding for removal of additional properties. Currently, FDR funding has been received for removal of a residence in the south part of the city, and two other commercial properties along the east bank

of the river in the downtown area are also slated for acquisition and demolition (Fick, personal communication).

Individually, each of the projects would have long-term positive impacts on the natural environment. Any combination of these projects would magnify these benefits citywide.

Managing stormwater and handling floodwater more efficiently would create a more consistent hydrologic regime for wetlands, which supports stable habitat and plant and animal life, as well as overall water quality. A more controlled system would also reduce erosion and sedimentation impacts that result from emergency pumping, standing basins of floodwater, and overtopping of roads and basins.

The Delano Stormwater Task Force (Task Force) was appointed by the Delano City Council on November 12, 2002. This was a nine-member committee appointed to identify priorities for flood mitigation projects within the City. Members included City residents as well as two professional engineers. Task Force meetings were held on the following dates:

- November 21, 2002
- December 6, 2002
- December 12, 2002
- December 19, 2002
- January 6, 2003
- January 9, 2003
- January 30, 2003
- February 5, 2003
- February 19, 2003
- March 13, 2003 – joint meeting with City Council

All City Council meetings are open to the public and are also locally televised. Minutes from meetings are also available on the City of Delano website. A specific public hearing discussing sump pump operations and the City's stormwater drainage ordinance was held February 4, 2003. The public notice from this meeting is included on the following page.

Public notice advertising the availability of the draft EA for public review has been drafted and included in Appendix E. This notice will be provided to a local newspaper of general distribution in the project area and will be available for review online at the FEMA website:

<http://www.fema.gov/ehp/docs.shtm>. The public will be provided 30 days for comment on the Preferred Alternative. The FEMA Region V office will collect and compile comments submitted by the public.

At the conclusion of the public review period, a summary of any comments received will be provided in this section and copies of the comments will be included in Appendix E.

Affidavit of Publication

RECEIVED

State of Minnesota }
 County of Wright } as
 County of Hennepin }

Bruce Treichler, being duly sworn, on oath says that he is the publisher or authorized agent and employee of the publisher of the newspaper known as the Delano Eagle and has full knowledge of the facts which are stated below:

(A) The newspaper has complied with all of the requirements constituting qualification as a legal newspaper, as provided by Minnesota Statute 331.02, 331.06, and other applicable laws, as amended.

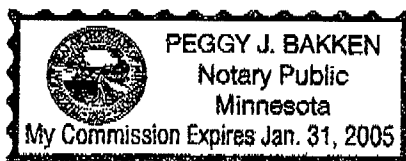
(B) The printed City of Delano
Pub Hrg-Storm Water Drainage Ordinance

DELANO
NOTICE OF PUBLIC HEARING
 NOTICE IS HEREBY GIVEN that the Delano City Council will hold a Public Hearing on Tuesday, February 4, 2003, 7:00p.m. or as soon thereafter as the parties may be heard, in the Council Chambers at Delano City Hall, 205 Bridge Avenue East, to consider a request from the City of Delano for a text amendment to City of Delano Storm Water Drainage Ordinance, Chapter 6, Section 606.01 with respect to sump pump operations.

All interested parties are hereby notified and invited to submit oral or written comments at said Public Hearing.
 Marlene E. Kinock, Clerk/Treasurer
 Published in the Delano Eagle Monday, January 20, 2003.

which is attached was cut from the columns of said newspaper, and was printed and published once each week for 1 successive weeks; it was first published on Monday, the 20 day of Jan., 2003 and was thereafter printed and published on every Monday to and including Monday, the ____ day of _____, 20____; and printed below is a copy of the lower case alphabet from A to Z, both inclusive, which is hereby acknowledged as being the size and kind of type used in the composition and publication of the notice:

abcdefghijklmnopqrstuvwxyz



By: Bruce Treichler
 Title: Publisher
 Bruce Treichler

Subscribed and sworn or affirmed before me on this 20 day of Feb., 2003

Notary Public Peggy Bakken

Table 3. Permits and Mitigation by Alternative

Alternatives	Permit/Mitigation Requirements
Alternative 1 – No Action	<ul style="list-style-type: none"> No permits or mitigation measures are required.
<p>Alternative 2 – Stormwater Lift Station with 80 cfs Pumping Capacity on the Former Bock Property (Preferred Alternative)</p> <p>Alternative 3 – Stormwater Lift Station with 80 cfs Pumping Capacity from Pond DT-P409</p>	<ul style="list-style-type: none"> Erosion would be minimized through the use of BMPs, including protecting erodible surfaces (through mechanisms such as silt fences) and not working during precipitation events. An NPDES permit would be obtained for proposed project grading. Compacted soils would be loosened by disking or raking. Project would be in compliance with EO 79-19 and the MNRRA/MRCA. Vehicle engines would be kept in good repair and turned off while not in use to prevent air emissions. Any hazardous materials discovered, generated, or used during implementation of the proposed project would be disposed of and handled by the City in accordance with applicable local, State, and Federal regulations. Vegetation would be replanted with species comparable to existing vegetation. An MDNR Water Appropriations Permit will be obtained prior to construction. A local floodplain development permit will be obtained prior to construction. The lift station will be floodproofed in accordance with the City's Floodplain Management Ordinance. All activities would conform to the hours of construction set by the City (7:00 AM through 7:00 PM Monday through Saturday). Appropriate gear would be required to protect the hearing of project workers. All project activities would be performed using qualified personnel trained in the proper use of the appropriate equipment, including safety precautions. All activities would be conducted in accordance with OSHA regulations.

Alternatives	Permit/Mitigation Requirements
	<ul style="list-style-type: none">• If artifacts or human remains are encountered during construction, work in the vicinity would be halted, and FEMA, the OSA, and the SHPO would be immediately contacted.• Flagging and fencing would be used to limit construction staging and parking areas.

7.1 CONSULTATIONS

The Minnesota Office of Homeland Security and Emergency Management sent initial consultation letters to the following agencies in October 2003:

- Minnesota Department of Natural Resources, Division of Waters
- State Historic Preservation Office
- United States Army Corps of Engineers

These agencies were contacted again by URS in September/October 2004 to ensure that findings relayed in 2003 were still applicable to the project. Agencies were sent a summary of the project and an update on the NEPA process.

In addition, MDNR consultation for rare, threatened, and endangered species was initiated by the Minnesota Office of Homeland Security and Emergency Management in February 2003. Consultation with the United States Fish and Wildlife Service (USFWS) was initiated by URS in October 2004, and the MDNR Natural Heritage Program (NHP) was also contacted to ensure that the original findings were still applicable to the project. The findings of the USFWS and the MDNR NHP are incorporated into the EA. These responses are included in Appendix B.

Additional consultations included:

- Federal Emergency Management Agency
- Minnesota Department of Public Safety - Homeland Security and Emergency Management
- City of Delano

The following will receive a copy of the Draft EA:

Federal Agencies

United States Army Corps of Engineers

United States Department of the Interior, U.S. Fish and Wildlife Service

Tribes

Lower Sioux Community

Prairie Island Indian Community

Shakopee Mdewakanton Sioux Community

Upper Sioux Community

State, County, and Local Agencies

Minnesota Department of Emergency Management

Minnesota Department of Natural Resources

State Historic Preservation Office

Office of the State Archaeologist
Minnesota Indian Affairs Council
Board of Water and Soil Resources
Wright County Soil and Water Conservation District
Wright County Planning
City of Delano

7.2 REFERENCES

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Personal Communication

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- Fowler, Patricia, MDNR, Area Hydrologist. Personal communication with Jessica Overmohle, URS Environmental Planner, September 28, 2004.
- *Krogstad, Brad, URS Engineer. Personal Communication with Jessica Overmohle, URS Environmental Planner, July 25, 2005.
- Torve, Kent, Wenck Associates, Inc., City Engineer for Delano. Personal communication with Jessica Overmohle, URS Environmental Planner, ongoing throughout project process.
- Torve, Kent, Wenck Associates, Inc., City Engineer for Delano. Personal communication with Lydia Nelson, URS Professional Wetland Scientist, February 17, 2005.

*Referenced in text; Record of Conversation attached.



TELEPHONE NOTES

URS
Thresher Square
700 Third Street South
Minneapolis, MN 55415
(612) 370-0700 Tel
(612) 370-1378 Fax
www.urscorp.com

Date: 7/25/05 Call was: ☒ Placed ☐ Received

Project: Delano Flood Mitigation Projects

Project No: 15702311.00100

Conversation Between: Jessica Overmohle

And Brad Krogstad, PE of URS

Telephone No: 612-373-6408

NOTES:

Brad Krogstad is an engineer in the Minneapolis office of URS, specializing in hydrologic and floodplain engineering. I sent Brad some information on the four Delano projects and asked him to provide an opinion on the impact of adding 120 cfs to the river as a result of the pumping at the proposed lift stations. Kent Torve from Wenck Associates, who acts as the City of Delano engineer, had previously made a determination that the addition of 120 cfs would add only "negligible" impacts to the South Fork of the Crow River, and a second opinion on this was solicited from Mr. Krogstad.

After reviewing the project, Brad indicated that the impact of 120 cfs was very small in terms of the total tributary area, and he would agree that it is negligible in terms of total flow. In addition, downstream impacts would not be a concern as a result of this project, due to the small volume of added water and the source of that water.

In summary, Mr. Krogstad said that while adding 120 cfs would impact the river, this impact would not be noticeable nor would it cause any problems downstream.

Copy to: _____



TELEPHONE NOTES

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Minneapolis, MN 55415
(612) 370-0700 Tel
(612) 370-1378 Fax
www.urscorp.com

Date: 7/22/05 Call was: ☒ Placed ☐ Received

Project: West Side Lift Station EA

Project No: 15702311.00100

Conversation Between: Jessica Overmohle

And Ed Fick, Hydrologist of MDNR

Telephone No: 651-215-1954

NOTES:

The purpose of this call was to inquire about any restrictions placed on the Bock Property as a result of the Flood Damage Reduction (FDR) grant attained to purchase and demolish the property. Ed indicated that all restrictions were laid forth in the grant language, and consist of a statement that any structure going into the subject site needs to be floodproofed in accordance with State standards. I indicated that we had consulted with WDNR Waters early in the process, and they had made a similar stipulation for the site. Ed asked if the Army Corps had been involved in the project as well, and I said yes, the Corps had also provided comments.

Ed asked about the current FEMA projects and also told me of three other properties in the City of Delano that are also being purchased and removed with FDR funds. The other two are located across the river from the Bock property, in the downtown area. He said these two are pretty much located right on the river and subject to frequent flooding. Ed has not yet received requests for funds on either of these two sites, but per his last conversation with Phil Kern, Delano City Administrator, they are planned. One is a working business and one he believes is abandoned. The sites are adjacent to each other. The business is a seasonal operation and therefore wants to wait to be bought out until after this summer is over.

The third property is a residence located downstream in the 100-year floodplain. Some funds have already been released for the purchase of this property.

Copy to: _____

Lydia Nelson, Professional Wetland Scientist, URS-Minneapolis (MSP) – Peer Reviewer/Field Assessment/Floodplain Review. Conducted field research for sections on Water Resources and Water Quality, Floodplain Management, Terrestrial and Aquatic Environment, Wetlands.

Jessica Overmohle, Environmental Planner, URS-MSP – Technical Researcher and Task Coordinator. Author of sections on Purpose and Need, Alternatives, Geology, Seismicity, and Soils, Air Quality, Hazardous Materials, Threatened and Endangered Species, Zoning and Land Use, Visual Resources, Noise, Public Services and Utilities, Traffic and Circulation, Environmental Justice, Safety and Security, Cumulative Impacts.

Amy Siegel, Document Control Supervisor, URS-Gaithersburg (GTB) – Document Quality Control.

Stephen Carruth, FEMA National Environmental Coordinator, URS-GTB – Independent Technical Reviewer.

Evelyn Tidlow, URS-MSP – Project Manager.

Figures



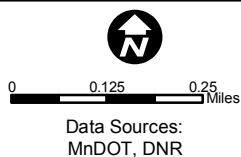
NO SCALE

Source:
U.S. Census Bureau

**ELM AVENUE DIVERSION
REGIONAL LOCATION
DELANO, MINNESOTA**

DRN BY: JO	10/14/04	PROJECT NO.	FIG. NO.
CHEK'D BY: XX	10/14/04	15702311.00100	1

URS Corporation N:\1570231\100100\projects\WLS_proj.mxd Date: 2/16/2005 10:46:05 AM Name: sbusk



URS

**WEST SIDE LIFT STATION
PROJECT LOCATION
DELANO, MINNESOTA**

Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

DRN BY: ES DATE: 10/5/04
CHKD BY: XX DATE: 10/5/04

PROJECT NO.
15702311.00100

FIG. NO.
2

URS Corporation N:\1570231\100100\projects\West Side_LS_alt.mxd Date: 7/8/2005 9:22:08 AM Name: estra



Legend

- Proposed Service Road
- Existing 60 inch pipe
- Alt 2 (w/30 inch pipes)
- Alt 3 (w/30 inch pipes)

0 0.015 0.03 0.06 Miles

Data Sources:
MnDOT, DNR

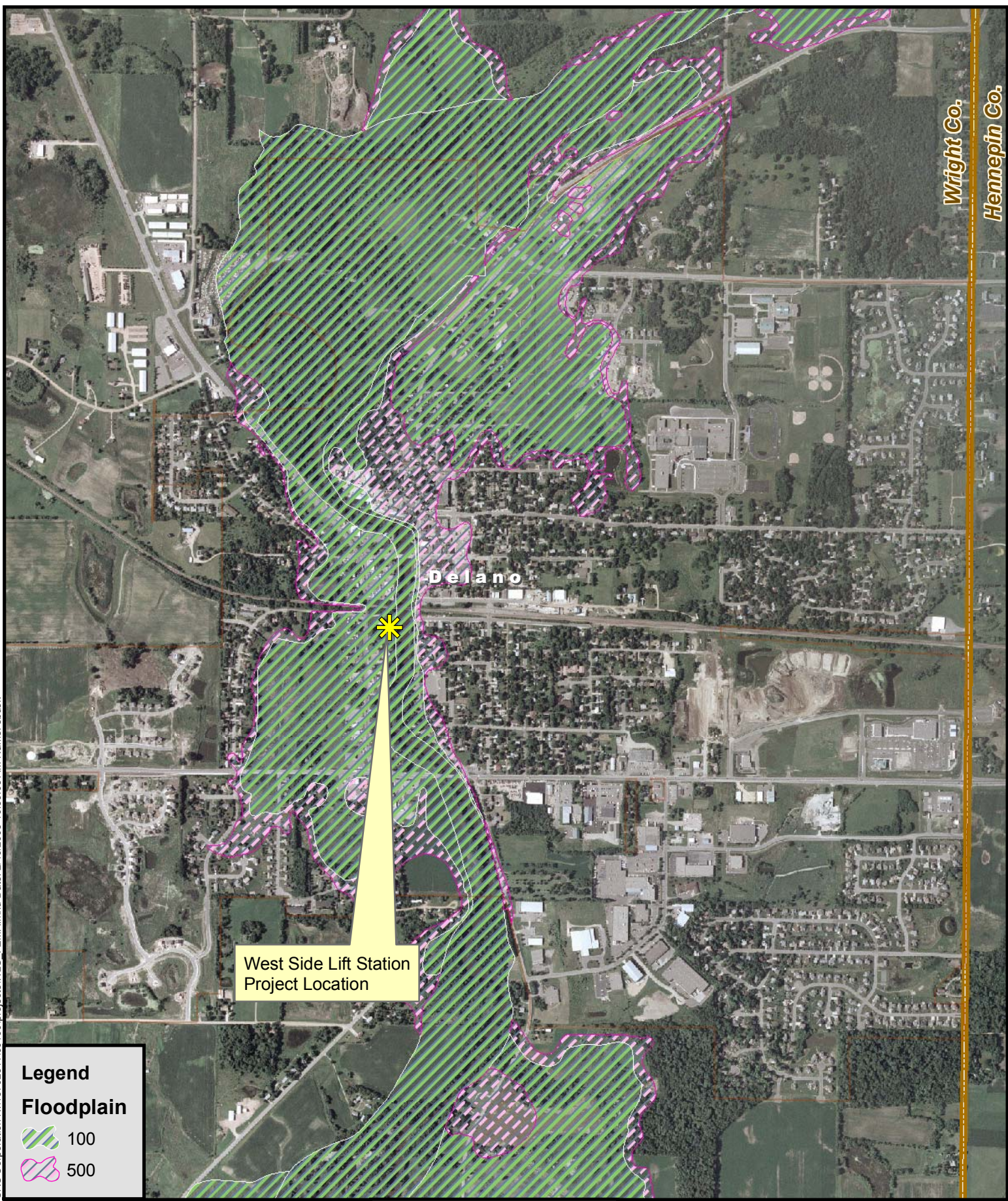


URS WEST SIDE LIFT STATION PROJECT ALTERNATIVES

Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax


DRN BY: ES	DATE: 7/8/05	PROJECT NO. 1570231.00100	FIG. NO. 3
CHKD BY: XX	DATE: 7/8/05		


URS Corporation N:\1570231100\1001\projects\WLS FEMA.mxd Date: 2/16/2005 10:39:05 AM Name: sbuck




Legend

Floodplain

 100


 500



0 0.125 0.25 Miles

Data Sources:
MnDOT, DNR, FEMA



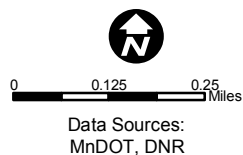
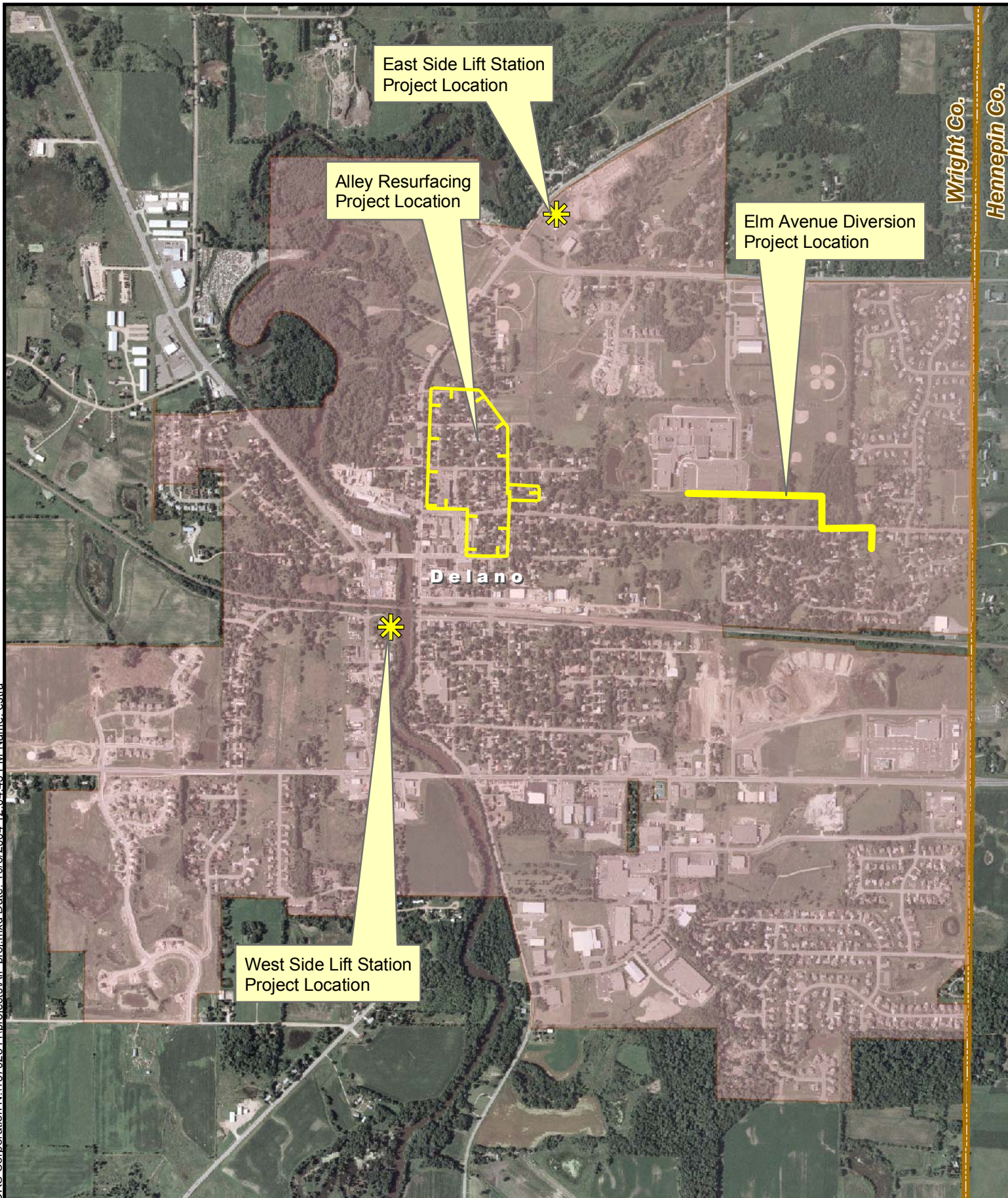


**WEST SIDE LIFT STATION
FEMA FLOODPLAINS
DELANO, MINNESOTA**

Thresher Square
700 Third Street South
Minneapolis, MN 55415
612-370-0700 Tel
612-370-1378 Fax

DRN BY: ES	DATE: 10/5/04	PROJECT NO. 15702311.00100	FIG. NO. 4
CHKD BY: XX	DATE: 10/5/04		

URS Corporation N:\15702311\projects\All - proj.mxd Date: 10/5/2004 12:04:43 PM Name: es:tra



**PROPOSED HMGP
PROJECT LOCATIONS
DELANO, MINNESOTA**

Thresher Square
700 Third Street South
Minneapolis, MN 55415
612-370-0700 Tel
612-370-1378 Fax

DRN BY: ES	DATE: 10/5/04	PROJECT NO. 15702311.00100	FIG. NO. 5
CHKD BY: XX	DATE: 10/5/04		

Appendix A
Project Area Photos



View of former Bock property site from driveway access off of TH 12.



Site of former Bock property, removed in 2004.



View of site facing from the top of the flood levee, facing TH 12.



Facing north toward ditch, along edge of flood levee.



View of railroad bridge across South Fork of Crow River, typical streambank vegetation in foreground.



View of flood levee from the north ditch, facing south.

Appendix B
Agency Correspondence



"Patricia Fowler"
<patricia.fowler@dnr.state.mn.us>

10/13/2004 01:55 PM

To: <jessica_overnohle@urscorp.com>

cc: "Ceil Strauss" <Ceil.Strauss@dnr.state.mn.us>, "Ed Fick" <ed.fick@dnr.state.mn.us>, "Suzanne Jiwani" <Suzanne.Jiwani@dnr.state.mn.us>

Subject: FEMA Hazard Mitigation Grant Program Projects in Delan

Jessica,

Thank you for your letter dated October 6, 2004, which requests the Department's review and comment of the above mentioned. It is understood that you are requesting this information on behalf of FEMA as part an environmental assessment for the four projects that the city has received grants for.

I have review the project narratives and the map showing the general location of the four projects and have the following comments:

- 1) Both proposed lift stations are within the 100-year floodplain and should be either flood proofed meeting state building code standards or elevated above the regulatory flood protection elevation in accordance with the city's floodplain ordinance.
- 2) The map showing the location of the West Side lift station appears to be located pretty close to the river/emergency levee. According to the FEMA FIRM map, the boundary of the floodway extends landward of the levee in this location; so care should be taken to ensure that the proposed lift station is not located within the floodway.
- 3) The proposed projects do not impact any DNR public waters of the state. Therefore, DNR authorization is not required. However, a DNR appropriation permit would be required if proposed construction dewatering would exceed 10,000 gallons per day or 1 million gallons per year.

Thank you for the opportunity to provide these comments. Please let me know if you should have any questions.

Thank you

Patricia Fowler
Area Hydrologist
DNR Waters - Sauk Rapids
Phone: (320) 255-2976
Fax: (320) 255-3999

Jessica
Overmohle/Minneapolis/URS
Corp

03/03/2005 04:41 PM

To

cc

bcc

Subject Fw: Delano EA - COE Review



"Fell, Timothy J MVP "
<timothy.j.fell@mvp02.usace.army.mil>

02/28/2005 12:36 PM

To: <Lydia_Nelson@urscorp.com>

cc:

Subject: RE: Delano EA - COE Review

Lydia,

Your summary below is correct in reference to the applicability of the COE General Permits for outfall structures, and the fact that excavation from within the wetland and/or ditch will not require a COE permit, provided there is no discharge of dredged or fill material.

Tim

-----Original Message-----

From: Lydia_Nelson@URSCorp.com [mailto:Lydia_Nelson@URSCorp.com]

Sent: Thursday, February 17, 2005 4:52 PM

To: Fell, Timothy J MVP

Subject: Delano EA - COE Review

Importance: High

Tim Fell
Army Corps of Engineers
St. Paul District

Tim,

Per our discussion today regarding the faxed information for the Delano EAs, the following is a summary of our conversation:

East Side Lift Station

The project proposes excavation within the stormwater pond, with disposal of all spoil material at an upland location. As discussed, the project anticipates using a back hoe to excavate and will not require additional "grading" within the pond. The excavation activity will not require a COE permit as long as it does not involve the discharge of dredge or fill materials within water of the US. Installation of the infall/outfall structures for the pond and at the stream would be authorized by a non reporting General Permit (Installation of outfall structures).

West Side Lift Station

The project would expand an existing ditch that has wetland characteristics. The project proposes to excavate along the south side of the ditch and expand to the south. No "grading" would be conducted within the ditch. The excavation activity will not require a COE permit

as long as it does not involve the discharge of dredge or fill materials within water of the US.

Installation of the infall/outfall structures for the pond and at the South Fork Crow River would be authorized by a non reporting General Permit (Installation of outfall structures).

At this time, it is our understanding that the installation of stormwater structures will comply with the COE General Permit , C. Utility Line Discharges, as long as all other GP conditions are met. Other excavation activities will not require a COE permit as long as they do not discharge fill to waters of the US. We will re-evaluate the project once a more detailed design is available to ensure that the GP is still applicable. We will continue to coordinate with the COE once a detailed design is completed.

If you disagree with this summary, please contact me to make corrections. This e-mail and the faxed information will be included in the appendix of the EAs to document our consultation.

Thank you for your assistance!
Lydia

Lydia Nelson
URS
Thresher Square, Suite 700
700 Third Street South
Minneapolis, MN 55415
lydia_nelson@urscorp.com

612/373-6380 (Phone)
612/373-6888 (Fax)



Minnesota Department of Natural Resources

Natural Heritage and Nongame Research Program, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-40__

Phone: (651) 296-7863 Fax: (651) 296-1811 E-mail: sarah.hoffmann@dnr.state.mn.us

November 10, 2003

Brian Woltz
Division of Emergency Management
444 Cedar Street, Suite 223
St. Paul, MN 55101

Re: Request for Natural Heritage information for vicinity of proposed City of Delano Storm Water System Improvements, T118N R25W Sec. 1, 11 & 12, Wright County
NINRP Contact #: ERDB 20040315

Dear Mr. Woltz,

The Minnesota Natural Heritage database has been reviewed to determine if any rare plant or animal species or other significant natural features are known to occur within an approximate one-mile radius of the area indicated on the map enclosed with your information request. Based on this review, there are 4 known occurrences of rare species or natural communities in the area searched (for details, see enclosed database printout and explanation of selected fields). However, based on the nature and location of the proposed project I do not believe it will affect any known occurrences of rare features.

The Natural Heritage database is maintained by the Natural Heritage and Nongame Research Program, a unit within the Division of Ecological Services, Department of Natural Resources. It is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, natural communities, and other natural features. Its purpose is to foster better understanding and protection of these features.

Because our information is not based on a comprehensive inventory, there may be rare or otherwise significant natural features in the state that are not represented in the database. A county-by-county survey of rare natural features is now underway, and has been completed for Wright County. Our information about natural communities is, therefore, quite thorough for that county. However, because survey work for rare plants and animals is less exhaustive, and because there has not been an on-site survey of all areas of the county, ecologically significant features for which we have no records may exist on the project area.

The enclosed results of the database search are provided in two formats: index and full record. To control the release of locational information which might result in the damage or destruction of a rare element, both printout formats are copyrighted.

The index provides rare feature locations only to the nearest section, and may be reprinted, unaltered, in an Environmental Assessment Worksheet, municipal natural resource plan, or report compiled by your department for the project listed above. If you wish to reproduce the index for any other purpose, please contact me to request written permission. Copyright notice for the index should include the following disclaimer:

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Please be aware that review by the Natural Heritage and Nongame Research Program focuses only on *rare natural features*. It does not constitute review or approval by the Department of Natural Resources as a whole. If you require further information on the environmental review process for other wildlife-related issues, you may contact your Regional Environmental Assessment Ecologist, Mike North, at (218) 828-2433. Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources.

Sincerely,

Chandra Carter

Sarah D. Hoffmann
Endangered Species Environmental Review Coordinator

encl: Database search results
Rare Feature Database Print-Outs: An Explanation of Fields



"Sarah Hoffmann"
<sarah.hoffmann@dnr.
state.mn.us>

To: <Jessica_Overmohle@urscorp.com>
cc: \.
Subject: Re: FEMA EAs in Delano

09/28/2004 01:03 PM

Hi Jessica,

I did a bit more searching and it appears that project number was 20040315. I rechecked the database quickly and we don't have any additional information for the Delano area, so our previous comments still hold.

Thanks for checking.

Sarah Hoffmann



Nick_Rowse@fws.gov

01/06/2005 01:05 PM

To: jessica_overmohle@urscorp.com

cc:

Subject: FEMA Hazard Mitigation Grant Program projects in Delano, MN

Dear Ms. Overmohle,

This responds to your email, requesting our comments on the potential impacts to federally listed threatened or endangered species for the proposed construction of four projects - the Elm Avenue Diversion, the East Side Lift Station, the West Side Lift Station, and Alley Resurfacing .

The federally threatened bald eagle (*Haliaeetus leucocephalus*) is documented to nest in Wright County. Bald eagles typically nest and roost in floodplain forest along the Crow River and other water bodies.

Because the site is not within any areas with known nesting bald eagles, we don't believe the project will have any adverse impacts. This precludes the need for further action on this project as required under section 7 of the Endangered Species Act of 1973, as amended. If the projects are modified or new information becomes available which indicates that listed species may occur in the affected areas, consultation with this office should be reinitiated.

Sincerely,
Nick Rowse
Fish and Wildlife Biologist
Twin Cities Field Office
4101 American Blvd. E.
Bloomington, MN 55425



MINNESOTA HISTORICAL SOCIETY
State Historic Preservation Office

December 2, 2003

Mr. Brian Woltz
MN Dept. of Public Safety
Division of Homeland Security and Emergency Management
444 Cedar Street, Suite 223
St. Paul, MN 55101-6223

RE: Elm Avenue Diversion Project
T118 R25 S12, Delano, Wright County
SHPO Number: 2004-0428

Dear Mr. Woltz:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and the Procedures of the Advisory Council on Historic Preservation (36CFR800), and to the responsibilities given the Minnesota Historical Society by the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act.

Based on available information, we conclude that **no properties** eligible for or listed on the National Register of Historic Places are within the project's area of effect.

Please contact Dennis Gimmetstad at (651) 296-5462 if you have any questions regarding our review of this project.

Sincerely,

Britta L. Bloomberg
Deputy State Historic Preservation Officer



"Gragg-Johnson, Kelly"
<Kelly.Gragg-Johnson
@mnhs.org>

10/01/2004 03:13 PM

To: <Jessica_Overmohle@URSCorp.com>
cc:
Subject: RE: FEMA EAs in Delano

Jessica -

Our review findings remain the same. Our comments still stand. Thanks for checking, though.

Kelly

-----Original Message-----

From: Jessica_Overmohle@URSCorp.com
[mailto:Jessica_Overmohle@URSCorp.com]
Sent: Tuesday, September 28, 2004 10:56 AM
To: Gragg-Johnson, Kelly
Subject: FEMA EAs in Delano

Hello Kelly,

This email is to inform you that FEMA is now in the process of completing Environmental Assessments for four separate projects that are funded under the Hazard Mitigation Grant Program. URS is under contract with FEMA to complete these EAs. All four projects are intended to mitigate frequent flooding in the City of Delano. The projects are all within the Delano city limits, and include:

Elm Avenue Diversion - installation of 1,900 feet of 21- through 36-inch piping to provide a pond outlet and reduce flooding in residential neighborhoods

East Side Stormwater Lift Station - construction of a lift station near the existing Wastewater Treatment Plant. Lift station would pump 40 cfs from a ponding area to the South Fork of the Crow River.

West Side Stormwater Lift Station - construction of a lift station on the west side of the River, near the railroad bridge. Lift station would pump 80 cfs from a ponding area to the River. A home would be removed and a ponding area constructed in its place.

Alley Resurfacing - paving of existing gravel alley surfaces with bituminous.

In October of last year, Lisa Dressler and/or Brian Woltz from the Minnesota Office of Homeland Security and Emergency Management were in contact with you about these projects. At that time, you indicated that given the nature of the proposed project activities, no impacts to historical resources are anticipated.

Given that a year has passed, we would like to confirm that your previous comments still stand. Please respond to this email, or feel free to give me a call at 612-373-6404 with any questions or comments. Please be advised that all 4 EAs will be released for public/agency review at the same time, announced by public notice. The EAs are just now entering the preliminary review stages with FEMA.

I appreciate your time!



Minnesota Department of Natural Resources

Natural Heritage and Nongame Research Program, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-40__

Phone: (651) 296-7863 Fax: (651) 296-1811 E-mail: sarah.hoffmann@dnr.state.mn.us

November 10, 2003

Brian Woltz
Division of Emergency Management
444 Cedar Street, Suite 223
St. Paul, MN 55101

Re: Request for Natural Heritage information for vicinity of proposed City of Delano Storm Water System Improvements, T118N R25W Sec. 1, 11 & 12, Wright County
NINRP Contact #: ERDB 20040315

Dear Mr. Woltz,

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Because our information is not based on a comprehensive inventory, there may be rare or otherwise significant natural features in the state that are not represented in the database. A county-by-county survey of rare natural features is now underway, and has been completed for Wright County. Our information about natural communities is, therefore, quite thorough for that county. However, because survey work for rare plants and animals is less exhaustive, and because there has not been an on-site survey of all areas of the county, ecologically significant features for which we have no records may exist on the project area.

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Sincerely,

Chandra Carter for

Sarah D. Hoffmann
Endangered Species Environmental Review Coordinator

encl: Database search results
Rare Feature Database Print-Outs: An Explanation of Fields



"Sarah Hoffmann"
<sarah.hoffmann@dnr.
state.mn.us>

To: <Jessica_Overmohle@urscorp.com>
cc: \.
Subject: Re: FEMA EAs in Delano

09/28/2004 01:03 PM

Hi Jessica,

I did a bit more searching and it appears that project number was 20040315. I rechecked the database quickly and we don't have any additional information for the Delano area, so our previous comments still hold.

Thanks for checking.

Sarah Hoffmann



Nick_Rowse@fws.gov

01/06/2005 01:05 PM

To: jessica_overmohle@urscorp.com

cc:

Subject: FEMA Hazard Mitigation Grant Program projects in Delano, MN

Dear Ms. Overmohle,

This responds to your email, requesting our comments on the potential impacts to federally listed threatened or endangered species for the proposed construction of four projects - the Elm Avenue Diversion, the East Side Lift Station, the West Side Lift Station, and Alley Resurfacing .

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Because the site is not within any areas with known nesting bald eagles, we don't believe the project will have any adverse impacts. This precludes the need for further action on this project as required under section 7 of the Endangered Species Act of 1973, as amended. If the projects are modified or new information becomes available which indicates that listed species may occur in the affected areas, consultation with this office should be reinitiated.

Sincerely,
Nick Rowse
Fish and Wildlife Biologist
Twin Cities Field Office
4101 American Blvd. E.
Bloomington, MN 55425



MINNESOTA HISTORICAL SOCIETY
State Historic Preservation Office

December 2, 2003

Mr. Brian Woltz
MN Dept. of Public Safety
Division of Homeland Security and Emergency Management
444 Cedar Street, Suite 223
St. Paul, MN 55101-6223

RE: Elm Avenue Diversion Project
T118 R25 S12, Delano, Wright County
SHPO Number: 2004-0428

Dear Mr. Woltz:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and the Procedures of the Advisory Council on Historic Preservation (36CFR800), and to the responsibilities given the Minnesota Historical Society by the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act.

Based on available information, we conclude that **no properties** eligible for or listed on the National Register of Historic Places are within the project's area of effect.

Please contact Dennis Gimmetstad at (651) 296-5462 if you have any questions regarding our review of this project.

Sincerely,

Britta L. Bloomberg
Deputy State Historic Preservation Officer



"Gragg-Johnson, Kelly"
<Kelly.Gragg-Johnson
@mnhs.org>

10/01/2004 03:13 PM

To: <Jessica_Overmohle@URSCorp.com>
cc:
Subject: RE: FEMA EAs in Delano

Jessica -

Our review findings remain the same. Our comments still stand. Thanks for checking, though.

Kelly

-----Original Message-----

From: Jessica_Overmohle@URSCorp.com
[mailto:Jessica_Overmohle@URSCorp.com]
Sent: Tuesday, September 28, 2004 10:56 AM
To: Gragg-Johnson, Kelly
Subject: FEMA EAs in Delano

Hello Kelly,

This email is to inform you that FEMA is now in the process of completing Environmental Assessments for four separate projects that are funded under the Hazard Mitigation Grant Program. URS is under contract with FEMA to complete these EAs. All four projects are intended to mitigate frequent flooding in the City of Delano. The projects are all within the Delano city limits, and include:

Elm Avenue Diversion - installation of 1,900 feet of 21- through 36-inch piping to provide a pond outlet and reduce flooding in residential neighborhoods

East Side Stormwater Lift Station - construction of a lift station near the existing Wastewater Treatment Plant. Lift station would pump 40 cfs from a ponding area to the South Fork of the Crow River.

West Side Stormwater Lift Station - construction of a lift station on the west side of the River, near the railroad bridge. Lift station would pump 80 cfs from a ponding area to the River. A home would be removed and a ponding area constructed in its place.

Alley Resurfacing - paving of existing gravel alley surfaces with bituminous.

In October of last year, Lisa Dressler and/or Brian Woltz from the Minnesota Office of Homeland Security and Emergency Management were in contact with you about these projects. At that time, you indicated that given the nature of the proposed project activities, no impacts to historical resources are anticipated.

Given that a year has passed, we would like to confirm that your previous comments still stand. Please respond to this email, or feel free to give me a call at 612-373-6404 with any questions or comments. Please be advised that all 4 EAs will be released for public/agency review at the same time, announced by public notice. The EAs are just now entering the preliminary review stages with FEMA.

I appreciate your time!

Appendix C

Best Management Practices

For information on the availability of Appendix C which is not included due to size formatting issues, please use contact instructions given in the Public Notice.

Appendix D
EO 11988 and EO 11990 Eight-Step Planning Process

Appendix D

EO 11988 and EO 11990 Eight-Step Planning Process

<p>Step 1: Determine whether the Preferred Alternative is located in a wetland and/or the 100-year floodplain, or whether it has the potential to affect or be affected by a floodplain or wetland.</p>	<p>Project Analysis: The City of Delano is a participant in good standing with the NFIP. According to FEMA mapping, the proposed project is located in the 100-year floodplain of the South Fork of the Crow River.</p> <p>According to NWI maps and a site visit conducted by URS on September 17, 2004, there are no jurisdictional wetlands in the project area. Areas that exhibit wetland characteristics will not be impacted by the proposed project.</p>
<p>Step 2: Notify public at earliest possible time of the intent to carry out an action in a floodplain or wetland, and involve the affected and interested public in the decision-making process.</p>	<p>Project Analysis: Status of the project has been discussed at numerous Delano City Council meetings to date. The project was also developed by a citizen task force that met nine times in 2003, and whose findings were reported to the City Council. All City Council meetings are open to the public and are also locally televised. Minutes from all meetings are also available on the City of Delano website.</p> <p>A notice will also be published by the Applicant in a newspaper of general circulation when the EA is made available for public review.</p>
<p>Step 3: Identify and evaluate practicable alternatives to locating the Preferred Alternative in a floodplain or wetland.</p>	<p>Project Analysis: The Preferred Alternative would not incur impacts to jurisdictional wetlands.</p> <p>The Preferred Alternative is located within the 100-year floodplain. The Preferred Alternative would not increase the 100-year flood elevation of the South Fork of the Crow River, but rather work to decrease the high water level. The proposed West Side Lift Station would be located at an existing stormwater pond, and would be positioned to collect water from a 1,020-acre drainage area (Bonestroo, 1997). Its position in the floodplain would allow for minimal required excavation for piping of water to the South Fork of the Crow River. In addition, the proposed project site has been recently cleared of a residential home that was plagued by periodic flooding. A lift station would be an appropriate use for the site, and would provide a benefit to surrounding homes. Due to the functional nature and capacity of this facility, this is the most practicable alternative for addressing the purpose and need of the project. Other than the No Action Alternative, there are no practicable alternatives for improving the storm sewer system that would</p>

Appendix D

EO 11988 and EO 11990 Eight-Step Planning Process

	<p>not involve building in the floodplain.</p> <p>The following alternatives were evaluated in the EA:</p> <p><i>Alternative 1: No Action</i></p> <p><i>Alternative 2: Preferred Alternative</i> Construction of a 1,000-square-foot lift station and new pond at the former Bock property, with 100 feet of 48-inch piping to run over the levee and into the South Fork of the Crow River.</p> <p><i>Alternative 3</i> Construction of a 1,000-square-foot lift station at Pond DT-P409, and approximately 600 feet of 48-inch piping to run under and parallel to Franklin Avenue, and outlet to the South Fork of the Crow River.</p> <p><i>Alternatives Considered but Eliminated</i> Construction of a lift station with 100 cfs pumping capacity was also considered as an alternative to this project. However, this alternative was dismissed because it would provide very little added flood protection at a much higher cost.</p> <p>The City of Delano also considered removing the homes within the area frequently affected by flooding. However, this alternative was dismissed because it would come at a much higher cost than the lift station, and would be more time-consuming to come to agreements with each of the homeowners.</p>
<p>Step 4: Identify the full range of potential direct or indirect impacts associated with the occupancy or modification of floodplains and wetlands, and the potential direct and indirect support of floodplain and wetland development that could result from the Preferred Alternative.</p>	<p>Project Analysis: The Preferred Alternative would have no adverse permanent effects to wetlands or the 100-year floodplain. All affected vegetation outside of the proposed ponding area would be replaced with similar vegetation to what exists today.</p> <p>The Preferred alternative would not increase the 100-year flood elevation of the South Fork of the Crow River. Construction of the lift station would not promote development in the floodplain, as the area is protected by the City's Floodplain District Ordinance.</p>
<p>Step 5: Minimize the potential adverse impacts to work within floodplains and wetlands to be identified under Step 4, restore and preserve</p>	<p>Project Analysis: As there are no anticipated wetland impacts, there will be no replacement</p>

Appendix D

EO 11988 and EO 11990 Eight-Step Planning Process

the natural and beneficial values served by wetlands.	<p>requirements necessary.</p> <p>The Applicant must follow all applicable local, State, and Federal laws, regulations, and requirements and obtain and comply with all required permits and approvals, prior to initiating construction on this project. No staging of equipment or project activities shall begin until all permits are obtained. The Applicant must apply BMPs for soil erosion prevention and containment during staging of equipment and project activities. Should project activities be delayed for 1 year or more after the date of this EA, coordination and project review by the appropriate regulating agencies must be re-initiated.</p> <p>There are no anticipated impacts to the 100-year floodplain or the 100-year flood elevation of the South Fork of the Crow River. Impacts of other projects adjoining this stormwater system will be reviewed as necessary to ensure that cumulative impacts to the floodplain are addressed.</p>
Step 6: Re-evaluate the Preferred Alternative to determine: 1) if it is still practicable in light of its exposure to flood hazards; 2) the extent to which it will aggravate the hazards to others; 3) its potential to disrupt floodplain and wetland values.	Project Analysis: The Preferred Alternative remains practicable based on the storm sewer improvement objectives.
Step 7: If the agency decides to take an action in a floodplain or wetland, prepare and provide the public with a finding and explanation of any final decision that the floodplain or wetland is the only practicable alternative. The explanation should include any relevant factors considered in the decision-making process.	Project Analysis: A public notice will be submitted informing of the FEMA decision to proceed with the project. This notice will include rationale for wetland and floodplain impacts; a description of all significant facts considered in making the determination; a list of the alternatives considered; a statement indicating whether the action conforms to State and local wetland and floodplain protection standards; a statement indicating how the action affects the wetlands and floodplain; and a statement of how mitigation will be achieved.
Step 8: Review the implementation and post-implementation phases of the Preferred Alternative to ensure that the requirements of the EOs are fully implemented. Oversight responsibility shall be integrated into existing processes.	Project Analysis: This step is integrated into the NEPA process and FEMA project management and oversight functions.

Appendix E
Public Notice

Federal Emergency Management Agency
PUBLIC NOTICE
Notice of Availability for Draft Environmental Assessments
For Elm Avenue Diversion, East Side Lift Station and West Side Lift Station
Delano, Wright County, MN

Environmental Assessments for Elm Avenue Diversion, East Side Lift Station, and West Side Lift Station; City of Delano, Wright County, Minnesota. FEMA-MN-2003-MN.

Interested persons are hereby notified that the Federal Emergency Management Agency (FEMA)/Department of Homeland Security (DHS) is proposing to assist in the funding of storm sewer system improvements to mitigate and prepare for damage caused by flooding in the City of Delano. In accordance with the National Environmental Policy Act (NEPA) of 1969 and the implementing regulations of FEMA, Environmental Assessments (EAs) are being prepared to assess the potential impacts of each of the proposed actions on the human and natural environment. This also provides public notice to invite public comments on the proposed project in accordance with Executive Order 11988, Floodplain Management, and Executive Order 11990, Protection of Wetlands. In addition, this notice and the draft EAs provide information to the public on potential impacts to historic and cultural resources from the proposed undertaking, as outlined in the National Historic Preservation Act of 1966.

The draft EAs are available for review between August 22, 2005 and September 20, 2005 at Delano Public Library, 140 Bridge Avenue East, and Delano City Hall, 234 2nd Street North, during normal hours of operation. A public meeting will be held to discuss these three proposed FEMA projects in Delano on September 6, 2005 from 6:00 PM to 7:00 PM at Delano City Hall. The draft EA is also available for review online at the FEMA website <http://www.fema.gov/ehp/docs.shtm>.

Written comments regarding this environmental action should be received no later than 5PM on September 20, 2005, by Jeanne Millin, Regional Environmental Officer, 536 South Clark, 6th Floor, Chicago IL 60605-1521, or at Jeanne.Millin@dhs.gov.

If no comments are received by the above deadline, the draft EA will be considered final and a Finding of No Significant Impact will be published by FEMA.

The public may request a copy of the final environmental documents from Jeanne Millin at the address listed above.